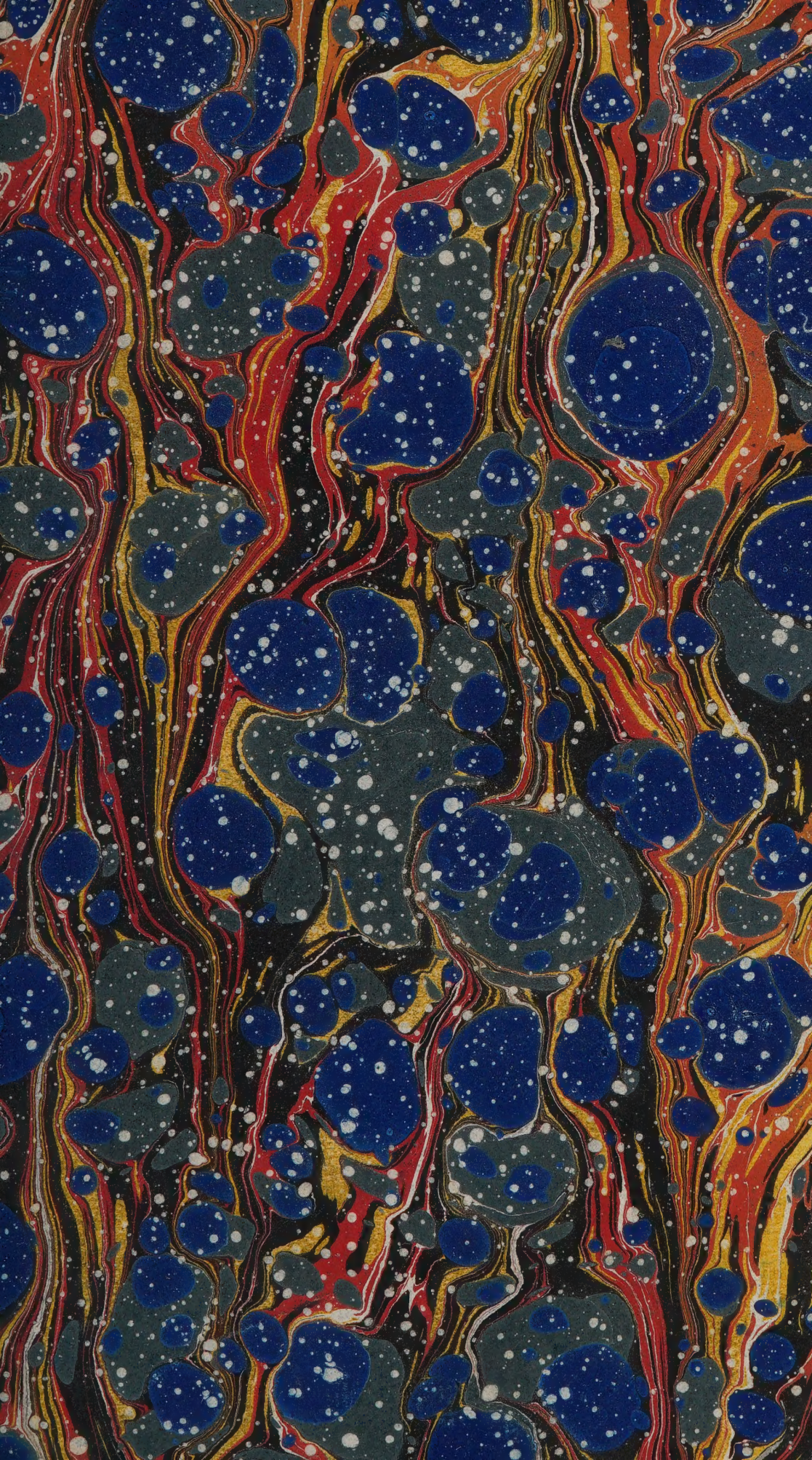

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MODERN TREATMENT

OF

SYPHILITIC DISEASES.

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THE

MODERN TREATMENT

OF

SYPHILITIC DISEASES,

BOTH

PRIMARY AND SECONDARY.

COMPRISING

NUMEROUS FORMULÆ FOR THE PREPARATION AND MODE OF ADMINISTRATION OF THE NEW REMEDIES;

AND

AN ACCOUNT OF A SAFE AND SUCCESSFUL MODE OF TREATING CHRONIC, PROTRACTED, AND CONSTITUTIONAL SYPHILIS BY THE MERCURIAL VAPOUR-BATH.

BY LANGSTON PARKER,
SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM, ETC. ETC.

SECOND EDITION.

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PREFACE

TO THE SECOND EDITION.

Six years' additional experience, both in Hospital and private practice, has enabled me to confirm the efficacy of most of the plans of treatment recommended in the first edition of this work. Much new matter has been added in the present edition, chiefly, if not altogether, original. That which I regard of the first importance, is the account of the treatment of various forms of Syphilis by the Mercurial Vapour-Bath. Diseases rebellious or tedious under ordinary treatments, generally yield with ease to this combination; more particularly affections of the skin and bones; the duration of treatment is by it much shortened, the quantity of medicine required to be given by the mouth greatly diminished, and the cures rendered more permanent and certain. Relapses after this mode of treatment I have found extremely rare; whereas under the ordinary plan they are exceedingly frequent,

even after a perfect cure had been supposed to have been effected.

On the whole it is hoped that this edition, entirely re-written, may be found more worthy the attention of the reader than that which preceded it.

20, Colmore Row, Birmingham;
Oct. 1845.

PREFACE

TO THE FIRST EDITION.

THE modern researches on Syphilis, its complications and consequences, and the improved modes of practice which have been the result of such investigations in this country, and on the continent, have, as yet, been made known to the public only in detached portions, and that chiefly, if not altogether, through the medium of the periodical medical literature of the day.

Much attention to the subject has impressed me with a conviction, that a work containing the result of modern experience would not be unacceptable to the profession; whilst, to the junior part of it, such a publication might be exceedingly useful.

Usefulness, and not originality, has been the great object I have consulted in composing the present work. It contains little, and, I believe, no theoretical matter, except perhaps the account of Mons. Ricord's researches "On Inoculation," in reference to Syphilis. I originally intended, and to the best of my ability I have carried out my intention, that it should contain only the result of generally received modern experience on the treatment of syphilitic diseases. I have adopted no party in the question; as will be perceived by a perusal of the work, not agreeing exclusively with the mer-

curialists, on the one hand, or condemning the remedy in toto, on the other, in accordance with the principles of the rational or physiologic school, or the partisans of the simple treatment. I have endeavoured to hold out to the confidence of the reader those plans of treatment, and those only, which are calculated to cure his patient the most speedily and with the greatest safety.

The opinions and practice of Wallace, Desruelles, Cullerier, and more particularly Mons. Ricord, will be found fully described in the following pages; whilst, at the same time, the result of my own experience has been added to the weight of theirs. In addition to this the value of many new remedies, now much employed in the treatment of Syphilis, has been discussed, and numerous forms for their administration given.

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Preparing for publication,

BY THE SAME AUTHOR,

Cases illustrative of the Efficacy of Treatment by the MERCURIAL VAPOUR-BATH, in various forms of constitutional Syphilis.

THE

MODERN TREATMENT

OF

SYPHILITIC DISEASES.

CHAPTER I.

THE SIMPLE TREATMENT OF SYPHILITIC DISEASES.

1. In 1813 Mr. Carmichael first drew the attention of the profession in this country to the systematic treatment of venereal diseases without mercury, limiting the employment of this medicine to certain forms of primary and constitutional infection. Mr. Carmichael employs mercury "in alterative doses" in cases of the "simple primary ulcer of the papular venereal disease which do not yield to rest, the antiphlogistic treatment, and astringent washes, and to produce its full effects in the true Hunterian chancre, with hardened edge and base." In the constitutional forms of disease this surgeon has recourse to mercury in alterative doses, "when the papular and pustular eruptions become scaly, and obviously on the decline, and have not yielded to sarsaparilla, antimonials, and the hydriodate of potass," to produce its full effects in iritis, in nodes when iodine has failed, and for the scaly eruption, the lepra or psoriasis which attends it, and the deep excavated ulcer of the tonsils.

2. It will be perceived that this practice is materially dif-

ferent from that employed on many parts of the continent, in Paris, Hamburg, Vienna, Sweden, and other places, where many surgeons treat venereal diseases, in all forms, without the exhibition of any mercurial preparation.

3. Various plans of treating syphilis without mercury have been practised by surgeons in all parts of the world prior to the time of Broussais, although that treatment, which is denominated at the present day "simple," dates its origin more immediately from the doctrines of that pathologist. Broussais, considering syphilis as a mere irritation without any specific character, promulgated in 1815 the following opinions on its nature and treatment:

4. "That syphilis is an irritation affecting the exterior of the body. That it is at first a local disease, but becomes subsequently constitutional; that to prevent the latter, the local disease must be treated by antiphlogistics, more particularly by frequent and full local bloodletting.

5. "That confirmed or constitutional syphilis may be cured by abstinence and an antiphlogistic treatment; but this method being tedious, mercury and sudorifics are generally preferred. That mercury and sudorifics cure syphilis by producing revulsion upon the exhalant capillaries:" hence, by Desruelles [1] and others, this is termed the "revulsive treatment."

6. "That the remedies termed antisyphilitic should be administered internally with caution, otherwise they commonly produce gastro-enteric affections, which exasperate the primitive disease; the revulsive action of the remedies is thus prevented, irritation is set up in the viscera, which terminates ultimately in their disorganization.

7. "When the remedies termed antisyphilitic have produced gastro-enteric irritation or inflammation, and the syphilis is not cured, the latter only amends with the affection of the stomach and bowels, and a long perseverance in a strict antiphlogistic regimen. If the abdominal viscera are disorganized, or the patient too much weakened, the cure is impossible.

[1] Traité des Maladies vénériennes. Paris, 1836.

8. "Mercurial preparations applied topically to external syphilitic irritations or sores, exasperate them always when they are intense, irritable, or inflamed. They cure them only when they are indolent, by opposing irritation to irritation. This fact is also applicable to all visceral inflammations, &c.

9. "Scrofulous subjects are more difficult to cure of syphilis than others. Those predisposed to visceral irritations should, when suffering from venereal affections, be treated on the antiphlogistic plan, both externally and internally. If treated internally by mercurials, the viscera are excited, and sometimes the syphilis itself is not cured."

10. Such are the principles laid down by Broussais, for although the non-mercurial treatment of syphilis had been occasionally resorted to, it was left to Broussais to lay down the simple treatment as a system. In the aphorisms of this pathologist many opinions are promulgated in reference to syphilis, which are contradicted by all ancient and modern experience, and even by the most candid of the followers of the physiologic school. We do not consider syphilis a mere irritation, independent of any specific character, as the researches of Ricord and others amongst the moderns sufficiently prove. It is a specific disease, inasmuch as many of its forms may be propagated by inoculation, and thus diseases of a precisely similar character produced.[1] It is a disease of irritation, inasmuch as all venereal sores are accompanied by a greater or less degree of inflammation; the intensity of this inflammation, and consequently the violence of the disease, depending on the constitution of the patient, the circumstances in which he is placed, his habits of living, and the local treatment of the syphilitic sore.

11. The simple or rational treatment is directed towards the removal of all the local and constitutional irritation which accompanies a venereal sore, by which the sore itself in many instances heals, and the disease is cured. Where it becomes

[1] See Ricord, Traité pratique des Maladies vénériennes. Paris, 1838.

necessary to employ mercury, it will invariably be found advantageous to administer the remedy in accordance with the principles of the simple treatment. This proposition is illustrated by the practice of the late Dr. Wallace of Dublin, who states that the most appalling forms of syphilis which he has met with have resulted from the injudicious application of mercurial preparations to venereal sores in a state of irritation or inflammation.

12. In all venereal affections, whether primitive or secondary, the diet should be light and unstimulating, and directly proportionate to the degree of irritation accompanying the disease, to the age and idiosyncrasy of the patient. It is difficult (says M. Cullerier) to conceive why the regulation of diet, so important in all other diseases, whether acute or chronic, should have been totally neglected in the management of syphilis. The patient should be placed upon the lowest possible diet when the local venereal affection is accompanied by much inflammation or irritability, when the affections are numerous in the same individual, if the disease be constitutional, the principal viscera in a state of excitement or irritability, and the subject young and vigorous. This regimen should be still more closely adhered to if the affection occur in spring or autumn, and is yet more strongly indicated if the patient be subjected to a mercurial course.[1] Desruelles recommends a milk diet if the patient be weak and the viscera unsound.[2]

[1] See Desruelles on this subject, op. cit. p. 249.

[2] In Sweden and Denmark, venereal diseases are treated systematically by diet alone, and to this plan the name "cura famis" has been given. It consists in submitting the patient to a very severe regimen, and the administration of the extracts of bark and conium as medicines. The regimen of the patient during the first six weeks consists of five ounces of roast meat without gravy or condiment of any kind, and six ounces of white bread soaked in water; this quantity is divided into two or three portions, but it is the whole quantity allowed for one day's consumption. The extract of conium is given in doses of four or six grains night and morning. At the end of six weeks the patient resumes his ordinary diet. All kinds of venereal diseases may be treated on this plan, whether recent or

13. On this point no fixed rules can be laid down;[1] they must be dictated by the circumstances of the case, and call for the exercise of much judgment on the part of the practitioner. It may be easily conceived that the severity of the regimen must vary according to the constitution of the patient we have to treat. Some subjects are soon weakened or rendered irritable by abstinence, or quickly placed in conditions favorable to the action of remedies; others, again, are not so readily brought into such states; and in some instances it becomes necessary to resort to general bloodletting and the warm bath.[2]

14. In all local and constitutional venereal affections, our first duty should be to examine the general condition of the system of the patient, to ascertain the state of the viscera of the chest and abdomen, and to place him upon such a regimen as may be most likely to diminish the irritability of the system generally, or of any one organ in particular. The bowels should be kept free by the exhibition of mild, unirritating purgatives, suited to the gastric constitution of the patient.

15. General bleeding should be employed as a preparatory

inveterate; but it is particularly indicated where mercury has been used without success, or where syphilis exists in a gouty or scrofulous constitution. A decoction of the root of the "smilax china" is given for drink to the extent of two pints in the day. (Exposé de la Méthode pour guérir les Maladies vénériennes dégénérées, par Osbeck; Stockholm, 1811.) The commission appointed to examine into the merits of this plan of treatment, decided that the cure was due to the regimen alone, and the medical treatment had little or no effect. The Swedish physicians restrict the "cura famis" to cases of constitutional, inveterate, or protracted syphilis. In primary syphilis it is considered injurious, and is supposed to favour the development of constitutional disease by rendering absorption more active. For a further account of this mode of treatment, see Bibliothèque Médicale, tomes 60 et 61. Journal de Hufeland, Juin 1817 'Quelques notices sur les Institutions médicales de Stockholm, et sur le traitement par la Faim, usité dans les hôpitaux de cette ville.' Gibert, Manuel des Maladies vénériennes. Paris, 1837.

[1] Plus vous nourrissez les corps impurs, plus vous leur faites de mal.

[2] Lucas Championnière, La Thérapeutique de la Syphilis, p. 115.

measure, when the circulating system of the patient is too active, or the inflammation accompanying the local disease acute.

16. The simple treatment attaches much importance to the position of the patient, in the cure of venereal affections; hence, whenever it is practicable, the patient should be confined to bed. This has the advantage of keeping the skin warm, and promoting perspiration, points of great importance, whilst the recumbent position favours the return of blood upwards through the pelvis, and tends to mitigate any inflammatory action or tendency. This position also renders the application of dressings much easier, and places the patient in a more advantageous condition for the action of remedies. In buboes, posthitis, acute or subacute gonorrhœa, ulcers on the genitals, vegetations about the anus, affections of the skin, &c., the recumbent position in bed, if not indispensable, most materially facilitates the cure.

17. The warm bath is a modifying agent of great utility.[1] In a great variety of venereal affections the patient may use it daily with advantage. The hip-bath, in many cases, from the situation of the venereal affection, may supersede the necessity of immersing the whole body. The patient may be directed to remain in the bath an hour, or two, or more, according to circumstances. Baths medicated with gelatin, starch, bran, or the decoctions of poppy, henbane, or belladonna, may be employed. General and local bleeding, low diet, aperients, the warm bath, with repose in the recumbent position, constitute the general simple treatment of syphilis; and so efficacious are these means in mitigating the irritations accompanying primitive or secondary syphilitic affections that, of themselves, they frequently work a cure. Where a mercurial, or other specific treatment is adopted, the simple general treatment, pursued at the same time, will be found most materially to assist it, whilst by keeping the constitution in a state free from

[1] See the Appendix for an account of the various kinds of baths recommended and employed by the author.

irritability, it prevents the accidents to which a mercurial course frequently gives rise.

18. As a good example of the mode in which the simple treatment may be employed, we may refer to the practice adopted by Dr. Roe, of the 39th regiment, as recorded in Dr. Graves's 'Clinical Medicine:' "The patients on their admission were purged with Epsom salts and tartar emetic, and were ordered to apply a piece of lint wet with a solution of the sulphate of copper to the sores, and to renew the application every third hour, using a wet linen roller to keep the parts clean, and retain the dressings. Milk diet, aperients every third day, the parts frequently bathed with cold water, particularly if pains existed in the groin. The chancres were occasionally touched with nitrate of silver, or sprinkled with red precipitate, to expedite the cure. No mercury, except as an aperient. Perfect rest in bed."

19. We shall now indicate some general rules for the surgical treatment of syphilitic affections, considering the particular treatment with each separate form of disease. The best antisyphilitic is frequently a dressing methodically made, it being in vain that we attend to the constitutional treatment of our patient, at the same time irritating or neglecting the local disease.

20. Syphilitic sores should be daily cleansed, by a soft sponge and tepid water, from the discharges which their surfaces secrete; this should be done without creating any irritation or pain, and care should be taken not to disturb any parts undergoing a process of cicatrization. Syphilitic ulcers, perhaps, more than any other kind, are liable from slight causes to become irritable, and assume a phagedænic character. The dressings to these ulcers should be of the simplest kind; mild astringent and anodyne solutions generally succeed better than the various kinds of ointments, particularly those which contain mercury. The testimony of all modern authors is decisive upon this point. The aromatic wine, with or without tannin, appears to be one of the most generally useful applications to primary syphilitic sores, particularly adapted to

those which are bad conditioned, dark, and disposed to become phagedænic from the want of a reparative power in the tissues where they are seated.[1]

21. In the treatment of almost every form of primary syphilis, more particularly that of the ulcerated kind, local bleeding by means of leeches should be adopted with extreme caution. If leeches are applied in the vicinity of an inflamed chancre, the bites will very probably become inoculated with the virus, and fresh chancres be consequently produced. If, again, as some writers recommend, leeches are applied in the centre of a venereal sore, with a view of diminishing the inflammation which surrounds it, the tissues become poisoned to the extent in which they have been divided by the bite of the leech, and hence an extension of the ulcer in depth will take place. Even in incipient bubo, swelled testicle, and other of the consecutive symptoms of primary syphilis, an extensive experience has taught us that local bleeding is not essentially attended with very marked benefit. We have other plans of treatment to recommend, less tedious and more certainly successful.

22. In inflammations of the testicle, and of the glands of the groin, if leeches are employed they are more efficacious placed directly upon the most painful part of the tumour, than in the course of the spermatic vessels, or around its base. M. Gama, chief surgeon to the military hospital of Val de Grace, observing the comparatively trifling effect of local bleeding on buboes, &c., as it is generally employed, practises with more success what he terms "saignée permanente." Instead of applying a large number of leeches at once, as twelve, fifteen, or more, he uses four or six, and when the bleeding begins to diminish, reapplies the same number, so as to keep up a constant flow of blood from the part for many hours.

23. Irritation is frequently kept up by the mere contact of

[1] See the chapter "On the particular treatment of Primary Venereal Sores," and the very able remarks of Mr. Key on this subject, in No. ix of the 'Guy's Hospital Reports.'

two inflamed surfaces, notwithstanding an appropriate treatment, in all other respects, may be methodically practised; hence, certain forms of superficial primary syphilis, or of balanitis,[1] and posthitis,[2] are kept up by the contact of the glans penis and prepuce, and some gleets protracted from the contact of the two sides of the urethra. Fricke, of Hamburg, first established this fact, which has been verified in the practice of Desruelles and Ricord; the latter has frequently succeeded in curing obstinate gleets by introducing a small portion of lint into the urethra, dry, or soaked in a mild astringent solution. The prepuce and glans, when either is the seat of irritation or ulceration, should always be separated by the introduction of fine linen, or lint. The continued contact of the glans and prepuce, when inflamed or ulcerated, frequently occasions their total or partial adherence.

24. Parts affected with syphilis which are deeply seated, or covered by folds of integuments or mucous membrane, should be daily cleansed by tepid anodyne or astringent injections, according to the character of the accompanying irritation. These injections should be practised quietly, without force, and without creating pain.

25. Abscesses should be opened early, more particularly if the presence of matter occasions much pain, or take place under fasciæ or tendinous expansions, where the pus cannot readily make its way to the surface. Long and deep sinuses should be laid freely open, or if it be practicable, a counter-opening may be made.

26. All parts in a state of natural or acquired strangulation which offer impediments to the cure of syphilitic diseases should be quickly relieved; this becomes necessary in natural or acquired phymosis or paraphymosis. The circumstances which contra-indicate this practice will be mentioned under the article on the particular diseases themselves.

[1] Balanitis, from *βάλανος*, glans; inflammation of the glans penis.

[2] Posthitis, from *ποστη*, preputium, inflammation of the prepuce; the term balano-posthitis, where both glans and prepuce are inflamed, is employed by some modern writers on syphilis.

27. I have treated numerous patients, in private practice, on the simple or rational plan, and the result of my experience has shown, that where the primary sore has not been characterized by an indurated base or edge, and has not left behind it, in healing, any induration of the cicatrix, the relapses have not been more frequent than under ordinary mercurial treatments, and certainly not so frequent as when a mercurial course has been irregularly followed, whilst the patient has been saved much time, and been spared much inconvenience. In these instances, also, the secondary or constitutional symptoms, when they have occurred, have generally been very mild, consisting, for the most part, in red or slightly copper-coloured patches (roseola), or small pustules thinly scattered over the trunk, face, and extremities, with superficial inflammation, or ulceration of the fauces. These symptoms have generally very quickly disappeared under the use of the vapour and mercurial bath, and there has been no farther mischief.

CHAPTER II.

OF THE MERCURIAL TREATMENT OF SYPHILITIC DISEASES.

28. It is not my intention to enter into any of the controversies respecting the mercurial or the simple treatment of syphilis, but merely in this place to point out the circumstances which modern experience has indicated for its employ; for although mercury cannot be considered in any measure as a specific against syphilis in any of its forms, still there are numerous cases in which it is the most powerful and certain therapeutic agent we can oppose to them.

29. Why is mercury to be employed in the treatment of syphilis? When is it to be employed? In what manner is it to be employed? What are the states of the constitution, and of the sore which are to guide us in pursuing its use or giving it up? And when is it to be discontinued? These are the practical questions which suggest themselves to us in reference to the use of mercury in venereal diseases, and to them we shall give the answers that modern experience has sanctioned.

30. Mercury is employed to facilitate the healing of a venereal sore, and to diminish the chance of secondary symptoms.[1] When (says Cullerier) the local applications before mentioned are insufficient to produce the cicatrization of a chancre, the patient must be placed upon a general mercurial treatment.[2] The rapidity of the complete cure of several va-

[1] Wallace, on the Venereal Disease and its Varieties, p. 100. Lond. 1838.

[2] Recherches pratiques sur la Thérapeutique de la Syphilis, ouvrage fondé sur les observations recueillés dans le service, et sous les yeux de M. Cullerier, par Lucas Champonnière. Paris, 1836.

rieties of venereal sores is enormously in favour of the mercurial treatment, whilst the number of secondary affections is, by it, much diminished.

31. Mercury may be used in the treatment of all primary venereal sores, though it is not necessary to their cure, nor is it used in the Parisian venereal hospitals,[1] when the sore heals under the use of topical applications and an antiphlogistic regimen, unless the healing of the sore leave behind it induration of the cicatrix.

32. Mercury is not to be used during the state of fever or local inflammation which is present during the first days of venereal ulcers, nor till our patient is prepared for it by low diet, aperient medicines, or local or general bleeding. When the fever and local inflammation or irritation which commonly attend primary venereal sores are removed, when the process of ulceration has stopped, and the sore remains indolent under the use of topical applications; above all, when its edges are elevated and hard, mercury may be employed with the full expectation of realizing its most beneficial results.

33. When a certain degree of induration accompanies a chancre, or persists after its apparent cure, recourse may be had to mercury, and, "as the mineral is frequently injurious in some other forms of syphilis, so it is of use here." Mercury may be employed in the absence of fever and local inflammation, when the sore has become indolent, and puts on no disposition to heal under ordinary local dressings. Dr. Wallace resorted to mercury, in most cases of primary venereal sores, when the process of ulceration had been arrested by the nitrate of silver, or other caustics, when the sore had become indolent, or assumed a disposition to heal. This author, recognizing the grand principles above detailed, that we are not to employ mercury in the earlier stages of chancre, whilst the constitution and sore are irritable and are still suffering from the more immediate effects of the venereal poison, says "great mischief

[1] Ricord, Traité des Maladies vénériennes. pp. 578 et suivantes. Paris, 1838.

frequently results from the topical employment of mercury, as well as of other stimulants, during the stage of ulceration or destruction of primary syphilis, by producing morbid excitement, followed sometimes by indolent and sometimes by irritable action, with their concomitants and consequences. The most appalling forms of this disease, which ever came under my observation, were caused by the injudicious application of the red precipitate, or other powerfully stimulating dressings, and it has therefore long been a principle with me strictly to avoid all mercurial and stimulating dressings during the ulcerating stage of syphilis. It is also in general highly improper to administer mercury internally during this stage, for if used at this period it may, instead of producing a salutary and specific influence, increase the inflammation, or excite a state of irritable or indolent action, after which the system will become quite insensible to ordinary doses of this medicine; and if under such circumstances larger doses of mercury be employed, a peculiar and complex state will most probably result, determined in its character by the combined influence of the disease, the remedy, and the constitution of the patient, a state in which mercury acts as a poison, or in other words not only aggravates all the symptoms, but perhaps excites a new train of peculiar morbid actions." [1]

34. Mercury is employed either in the form of ointment by friction, or internally in various forms of preparation. I prefer employing mercury by friction in primary venereal sores. I order from a quarter of a drachm to a drachm and a half of mercurial ointment at each friction, leaving an interval between them of one, two, or three days, with the view of not irritating either the sore or the constitution, by bringing the latter suddenly under the influence of the remedy. These frictions may be made upon the insides of the thighs or legs, in the inguinal region or popliteal space. Ricord frequently orders the frictions to the axillæ, and they may be thus employed in certain forms of venereal ulcerations of the mouth and fauces.

[1] Op. cit. pp. 109-10.

Cullerier relates the histories of two cases cured by mercurial frictions in this situation, which had resisted its employment on other parts. As an internal remedy, in the primary venereal ulcer, the iodide and bicyanide of mercury are preferred in the Parisian venereal hospitals, as more certain in their effects, and less irritating than either calomel or the bichloride. The dose is from two to six grains a day, combined with opium, to which antimony may be added with advantage.

35. During the employment of mercury, the states of the sore, of the constitution, of the mouth and breath, are to be carefully watched, since each of them may assume certain conditions which would render the further use of mercury injurious.

36. The state of the sore whilst the patient is taking mercury should be frequently examined, and topical applications suited to its condition employed. At one time it may require anodynes, at another astringents, or again slightly stimulating applications may become necessary. During the mercurial course, also, the diet should be mild and unstimulating, and the condition of the stomach and bowels carefully attended to. Dr. Wallace recommends the mastication and deglutition of grains of allspice or pepper during the day, and covering the abdomen with two or three folds of flannel. A nightly draught or pill of some preparation of opium with capsicum [1] may be employed with advantage, even during the period the patient is using mercurial frictions; the former not only prevent those attacks of pain, griping, and diarrhœa which sometimes come

[1] ℞. Pulv. Opii, gr. j.
Pulv. Capsici, gr. ij.
Conf. Aromat. q. s. ft. Pil.
Omni nocte sumend.

or,

℞. Liq. Opii sedativ. ♏ xx. ad xxx.
Tinct. Capsici, ♏ xxx. ad l.
Aquæ Cinnamomi, ℥j. M. ft. Haust. h. s.s.

luring a mercurial course, and materially retard the healing
ess, but they contribute directly to the therapeutic effects
ne mercury.

7. It is from a want of attention to these circumstances,
persons are so frequently placed upon the mercurial plan
out being cured. This arises from their neglecting the
ifications of topical applications, and not observing the
etic regimen suited to their state.

8. The condition of the sore is very frequently an indica-
of the effect of mercury upon the constitution, and points
clearly whether it is agreeing with the system or not.
n this circumstance we recommend a frequent examination
ne local disease during the time the patient is using mercury.
will be found a most important rule in practice to omit
nercurial treatment whenever there appears an increase of
mmation or sensibility to arise in the local disease during
employment of mercury, for a perseverance in its use,
er such circumstances, will almost inevitably tend to some
of destructive action, determined in its character by the
titution of the patient. In such cases we must have re-
se to emollient and anodyne applications, purgatives, rest,
nence, and diaphoretics, with or without narcotics, and
oon as the morbid actions which have supervened have
removed, mercury if necessary may be again resumed, to
uspended afresh in case of a return either of inflammation
ritability." [1]

9. The state of the constitution as well as of the sore, de-
ds great watchfulness during the administration of mer-
for the cure of primary venereal sores. It is quite cer-
that venereal sores, which have resisted all other modes
eatment, daily heal under the use of mercury, whilst the
dy produces no sensible effect upon the economy either
ausing salivation or mercurial fever. We therefore insist
the principle, that the greater the degree of excitement
deviation from the healthy condition of any of the func-
which mercury produces, the greater is the danger of its

[1] Wallace, op. cit. p. 119.

action being followed by deleterious effects, or of its ceasing to influence in a salutary manner the symptoms of syphilis. It is from a knowledge of this fact that both Cullerier and Ricord attend so much to the condition of the general health during a course of mercury, by abstracting their patients from all causes of excitement.

40. It is not necessary that mercury should produce salivation in order that its benefits, in curing primary syphilitic ulcers, or diminishing the chance of secondary symptoms may be realized. What then are the rules to guide us in these circumstances? How long is our patient to be submitted to the use of mercury, and when is it to be discontinued? The healing of the sore, without a thickened condition of the cicatrix is our rule for the discontinuance of mercury. This remedy must be discontinued as soon as the traces of infection are no longer evident. Some patients are not easily affected by mercury, and their sores remain indolent even under its long-continued use. In these cases it is well from time to time to lay aside the mercury and treat our patient on general principles, and again to have recourse to mercurial treatment under some other form, if the disease still continue obstinate. A change in the form of mercurial remedy exhibited is frequently very efficacious, particularly in syphilitic diseases of the skin, or in rebellious forms of ulceration. I have seen the mercurial fume bath succeed after a complete treatment by inunction and blue pill had failed; and the bichloride in small doses beneficial, when blue pill and calomel had been taken without success.

41. We must not think of secondary symptoms after a sore has healed under the influence of mercury, nor prolong the treatment too far with a view of preventing them. Secondary symptoms appear after the fullest courses of mercury, and occasionally do not appear when mercury has been altogether abstained from. [1]

[1] These paragraphs appear the most rational guide that can be given for the discontinuance of a mercurial course. Dr. Colles continues it a few days after all hardness of the cicatrix is removed, and thinks the mer-

42. The state of the mouth should be carefully examined before resorting to a course of mercury; sometimes a stomatitis may be present before the administration of this remedy, and we might thus be deceived in its effect, mistaking the inflammation of the mouth, which was previously in existence, for one which is the result of mercury. It is quite certain that many morbid conditions of the mouth and breath so closely resemble those produced by mercury, that, without an examination of the mouth before resorting to a mercurial course, we might be led into great error. [1]

43. When the breath becomes fetid, and the gums tender, the mercury must be discontinued, or very much diminished in quantity. The patients should use slight astringent gargles, with mineral acids, and lozenges of the chloride of lime. [2]

44. M. Desruelles, surgeon to the military hospital of Val de Grace, having the charge of the venereal department of that establishment, and a partisan of the simple or physiological treatment of syphilis without mercury, entertains the following opinions as to its use, and gives certain rules for its exhibition. Certain chancres, says he, of a phagedænic or Hunterian character with a hard base, or which leave behind

curial treatment should be continued to the extent of moderate ptyalism for a month. Mr. Judd mentions, as the duration of the course, from twenty-five to thirty days. I am firmly convinced that the patient is as secure as he can be from secondary symptoms, by following the rule, "to discontinue the mercury when the sore has healed, and all induration of the cicatrix has disappeared."

[1] See Ricord's remarks on this subject, op. cit. pp. 627-8.

[2] ℞. Sodæ chlorid. solutionis (Beaufoy's.)
Tinct. myrrhæ, āā ℥ss.
Aquæ ℥v. M. ft. garg.

℞. Aquæ destillatæ, ℥vij.
Aluminis et potassæ sulph. ʒij.
Mellis rosarum, ℥j. M. ft. garg.—*Ricord.*

Lozenges of Chloride of Lime.—℞. Calcis chlorid. ʒiv; sacchar. alb. ℔j; amyli, ℥iv; P. gum. tragacanthæ, ʒij. M. Aquæ aurantii quantum sufficit. The mass is to be made into lozenges of three grains each. Their use, principally in removing the mercurial fætor of the breath.

them in healing an indurated cicatrix, are more frequently followed by secondary symptoms, when treated without mercury, than if this remedy had been given.

45. When venereal sores become stationary, or do not heal under the simple treatment, and the exhibition of mercury is not contra-indicated by the inflammatory or irritable condition of the sore, or certain states of the constitution, mercury may be advantageously used. Mercury, according to M. Desruelles, is not to be employed when any of the viscera present symptoms of irritation, when the patient applies immediately after having contracted his disease, or when the sore heals quickly under the simple treatment.

46. Mercury may be given when the local inflammation accompanying a venereal sore has been subdued, and the patient is prepared for its exhibition by diet and aperients, the sore remaining indolent, of a bad aspect, and not healing or appearing to be influenced by the simple treatment. This remedy may be also employed if the sores are complicated with inflammation or enlargement of the glands of the groin, or if any affection of the skin, as papular or other eruptions, make their appearance during the simple treatment, and there is reason to believe the constitution affected.

47. In many secondary affections, although generally trusting to the simple treatment, Desruelles thinks the employment of mercury, particularly of the iodide, may be of service. He merely states that if secondary symptoms appear in an individual, who has for the primary form of the disease, been treated fully by mercury, it is better to employ the simple treatment, sudorifics, and attention to the general health, than to have recourse again to the employment of mercury. In secondary syphilis, which succeeds to a primary affection treated without mercury, this remedy is almost always necessary. A mild mercurial course in such instances is generally more efficacious than any other.

CHAPTER III.

ON INOCULATION, AS APPLIED TO THE DIAGNOSIS AND TREATMENT OF SYPHILITIC DISEASES.

48. Both before and since the time of Hunter, inoculation has been employed for the purpose of testing the character of syphilitic diseases; and at the present day, M. Ricord has deduced from an extended series of experiments, certain conclusions of great value and importance, which he has given to the world in his great work 'Traité pratique des Maladies Vénériennes, ou Recherches critiques et expérimentales sur l'Inoculation, appliquée à l'étude de ces maladies.' [1]

49. M. Ricord establishes, in the first place, that a chancre, wherever it may be seated, is produced by a specific matter which is secreted by a chancre only, which matter produces a similar disease whenever placed in circumstances favorable to contagion.

50. This specific matter is only secreted from the surface of a chancre during its first stage, that is, during the period of ulceration, or when the sore is indolent or stationary. At these periods only does a chancre secrete a specific matter capable of producing a similar disease by inoculation. When the sore begins to heal and a process of reparation has commenced, it is merely a simple ulcer, does not furnish a specific secretion, and is not capable of propagation by inoculation. [2]

[1] Paris, 1838.

[2] It would appear that these views were likewise entertained by Dr. Wallace, who divides chancre into two distinct stages or phases, the first

51. If matter be taken from a chancre during the period of ulceration, and introduced under the epidermis by means of a lancet, it produces the following effects: During the first four and twenty hours the puncture becomes more or less inflamed; from the second to the third day it is accompanied with slight tumefaction, and presents the appearance of a small papula surrounded with a red areola; from the third to the fourth day the disease assumes a vesicular form, the epidermis being raised by a fluid more or less opaque, presenting at its apex a small dark point; from the fourth to the fifth day the contents of the vesicle become purulent, the apex of the pustule depressed, resembling very much the pustule of smallpox. At this period the areola, which had progressively increased, begins to diminish or altogether disappears, particularly if the disease does not increase: after the fifth day, however, the subjacent and surrounding tissues, which hithero had undergone little or no modification or were merely slightly œdematous, become indurated by the extravasation of a plastic lymph, which communicates to the touch the resistance and elasticity of cartilage. After the sixth day the contents of the pustule thicken, the pustule itself shrivels up, and is covered with crusts. These enlarge towards their base, and forming by successive strata, at length assume the form of a truncated cone with a depressed apex. If these crusts are detached, or if they fall off, we find under them an ulcer with the hard base of which we have spoken, extending through the whole thickness of the skin. The surface of this ulcer, of a deep red colour, is foul, covered with a thick adhesive pultaceous matter, almost like a false membrane, which cannot be removed by any attempt to clean the sore. The edges of the ulceration at this period appear as though it had been dug out from the surrounding parts by a sharp circular instrument. The immediate vicinity of the sore is surrounded by a red,

one of ulceration, the second one of reparation; he particularly insists upon the impropriety and danger of administering mercury during the first stage, that of ulceration.

dark, or livid margin, more elevated than the surrounding parts.

52. M. Ricord further establishes that chancre in its commencement is purely a local disease; that constitutional or secondary affections can only take place after this antecedent; that they do not occur in all cases, and only after the lapse of a certain period of time.

53. Whatever may be the varieties and complications which subsequently follow or accompany the inoculated chancre, the progress of the latter is in all instances such as we have described it. The pustular form of incipient chancre is only wanting when the parts to which the virus is applied are destitute of epidermis or epithelium, and it is only preceded by phlegmonoid inflammation when the matter has been introduced into the subcutaneous cellular tissue, or into the lymphatic system.

54. The ulcerations completely destroyed or arrested on the third, fourth, or fifth day from the application of poison are not liable to secondary inflammation. It is not before the fifth day that the induration of chancres commonly commences, and it is the indurated chancre that is most frequently followed by secondary symptoms; this induration seems to indicate that the affection has become in some measure already constitutional; as long as there is no induration we may suppose the disease to be merely local.

55. The varied appearance which primary venereal sores presents (says M. Ricord) has given rise to arguments against the identity of the venereal virus, and has led to the promulgation of the theory of a plurality of venereal poisons. Inoculation, however, sets this matter at rest, for whatever may be the actual character of the sore from which we take the pus, provided it be taken during the first stage of chancre, that of ulceration or indolence, we obtain by inoculation a regular pustule when the matter is introduced beneath the epidermis or epithelium; an ulcer when it is applied to a denuded surface; and an abscess when introduced into the cellular tissue, or into the lymphatic system.

56. The various characters of chancres, or primary venereal sores, are due to circumstances which are foreign to the specific cause which produced them; these are principally the particular constitution of the patient, his mode of living, the influence of any antecedent or present disease with which he may happen to be affected, and not least the local treatment of the sore. It is from one or many of these circumstances that we see phagedænic ulcers in subjects who have contracted their disease from others affected with ulcers of the simplest character.

57. The first stage of chancre, i. e. of ulceration or indolence, is the only one during which the disease is susceptible of propagation by inoculation; the period of this stage is not limited, hence M. Ricord has known primary venereal sores capable of propagation after having continued eighteen months.

58. The researches of M. Ricord on the nature and differential diagnosis of buboes are of equal interest with those which we have detailed on the subject of primary sores. According to this author, buboes are of two kinds, simply inflammatory or virulent: in the first instance, succeeding to gonorrhœa, balanitis or any other primitive affection; and in the second, from the consequences of the direct absorption of specific matter from a chancre. To the pathology of bubo we shall return in the chapter particularly devoted to its consideration; in this place merely detailing the results obtained by inoculation from buboes in a condition of ulceration.

59. M. Ricord deduces from his experiments upon buboes in a condition of ulceration, the following conclusions: that a virulent bubo, or one resulting from the absorption of the specific pus from a chancre, is a disease precisely similar to chancre, merely differing from it in its seat, and the anatomical organization of the parts affected; that this species of bubo is the only one capable of producing a pustule by inoculation; that the symptoms hitherto indicated by authors, with a view of establishing the differential diagnosis between a true virulent bubo and one merely inflammatory, are of little value, inoculation being the only certain and pathognomonic sign.

60. M. Ricord admits the existence of buboes which are not preceded by any other syphilitic affection: these make their appearance at a certain period after an impure connexion without the intervention of chancres, gonorrhœa, balanitis, or other form of primary irritation. The existence of these buboes is also admitted by Fallopius, Astruc, Swediaur, Bertrande, Gibert, and lately by Dr. Mondret, in a memoir inserted in the "Recueil périodique de la Société de Médecine," for August 1837. These buboes are termed by the French surgeons "bubons d'emblée," and may be either simply inflammatory or syphilitic. M. Ricord insists that when these buboes occur without the intervention of any antecedent form of disease, it is impossible to judge of their true character without the test of inoculation, and consequently impossible to heal them rationally or well. He maintains that those only which furnish the characteristic pustule of chancre by inoculation are those only which are capable of being followed by secondary symptoms. Those from which no pustule can be obtained by inoculation are simply inflammatory, and must be treated on general principles.

61. With reference to the test of inoculation itself, some degree of difference of opinion exists, although M. Ricord states that the reason of this is, that the experiments have not been made in a proper manner. On this point we consider this author's opinions worthy of attention. Whenever inflammation and suppuration of the cellular tissue, or lymphatic glands of the groin, is owing to any other cause than the occurrence of chancre, the pus secreted furnishes no result from inoculation, at whatever periods and under whatever circumstances the test may be made. Neither does it follow, of necessity, that buboes succeeding to true chancres will furnish a specific pus; and consequently, by inoculation, a characteristic pustule. That this may occur, it is necessary that the bubo shall not merely be owing to a simple sympathetic inflammation, but that actual absorption of the specific matter of the chancre shall have taken place. When absorption of the matter from a chancre on the genitals takes place, it is

generally confined to the superficial glands of the groin; and most frequently the syphilitic poison is conveyed to one gland only, although many of the glands in the immediate vicinity of the latter, both superficial and deep seated, are inflamed, and suppurate at the same time, so that the matter taken from one gland shall be purely syphilitic, and give rise, by inoculation, to the characteristic pustule, while those in its immediate neighbourhood, and the cellular tissue, shall be affected by simple phlegmonoid inflammation, the pus from which shall, when tested by inoculation, give a negative result.[1]

62. It may be very readily conceived, that the irritation produced by the passage of the syphilitic poison through a lymphatic vessel and ganglion may excite in the neighbouring organs an inflammation which is not specific, but merely phlegmonous, and this appears to be the true nature of the case. M. Ricord opened a bubo which had succeeded to a chancre, the pus from which produced no result by inoculation. In the centre of the abscess he discovered an enlarged lymphatic gland, presenting an evident fluctuation; this was punctured and tested by inoculation, the characteristic pustule of chancre was obtained.

63. Discharges from the urethra are of two kinds, resulting either from the existence of a true syphilitic ulcer in some part of the passage, or owing to gonorrhœa properly so called. Chancres, or syphilitic ulcers of the urethra, to the consideration of which we shall return in a particular article, are in all respects, except situation, of the same character as other primary sores, and give rise to the same results when the matter is tested by inoculation.

64. The matter of gonorrhœa, applied upon a mucous surface, produces an inflammation and discharge of the same character. In no instance can it produce a true syphilitic sore; although by remaining in contact with a mucous surface for a certain period of time, it may occasion a greater or less degree of excoriation, but is not capable of producing a specific

[1] See Ricord, op. cit. pp. 142 et suivantes.

ulcer, as the researches of Ricord,[1] Hernandez,[2] and others, incontestably prove.

65. The diseases which are consecutive to gonorrhœa, as sympathetic buboes, &c., do not secrete pus capable of producing a specific ulcer by inoculation, neither do secondary or constitutional symptoms ever succeed to a simple gonorrhœa.[3] M. Ricord thinks that in the rare cases where secondary symptoms have been said to have followed a simple gonorrhœa, that the diagnosis of the primitive disease has been inexact, that the diseased surfaces have not been properly examined, and the cases have been concealed chancres of the urethra, and not gonorrhœa. It is also extremely probable that such were the forms of disease which embarrassed Dr. Wallace, who says that he had met with some forms of discharges from the urethra which were beneficially influenced by mercury, and which he was unable to cure without its exhibition.

66. The pus of gonorrhœa, tested by inoculation, gives no result; it may be followed by inflammation, but never produces a specific sore: injected into the urethra it produces a disease like that of which it is the product: applied externally between the glans and prepuce it occasions inflammation and discharge, balanitis, or external gonorrhœa: a similar effect follows its application upon other mucous surfaces.

67. We would here inquire what is the real position inoculation occupies in reference to the therapeutics of primary syphilis. Inoculation, pushed to its greatest extent by M. Ricord, has proved, beyond a question, the fact which English surgeons had always acted upon, though, we must admit, not upon such good grounds as they do now, that syphilis is a

[1] Mémoires, sur quelques Faits observés à l'Hôpital des Vénériens, par P. Ricord. Mémoires de l'Académie Royale de Médecine, tome 2me.

[2] Essai analytique sur la Nonidentité des Virus gonorrhöique et syphilitique; par J. F. Hernandez. Toulon, 1812.

[3] Such is M. Ricord's statement. Secondary symptoms of mild character do succeed to discharges from the urethra, where there is no reason to suspect the existence of ulceration. We shall in subsequent pages have to instance some very curious examples of this.

specific disease, and not the result of the ordinary forms of irritation. M. Ricord has proved that certain sores, when tested by inoculation, produce a pustule running through certain stages, and terminating in a specific ulcer, capable of being propagated, ad infinitum, by the same means. M. Ricord, however, has only shown that certain ulcers produce a characteristic pustule by inoculation, and therefore should be those only which are truly specific; yet we find other sores, the result of sexual intercourse, succeeded by secondary symptoms of the worst kind, and also yielding magically, in some instances, to mercury, when all other remedies had failed; the old Hunterian test of true syphilis.

68. In the present state of science all we can say is, that certain ulcers, the result of sexual intercourse, and not distinguishable by their external characters from other ulcers equally the result of sexual intercourse, yield a characteristic pustule by inoculation; but the ulcers which do not yield the characteristic pustule are equally liable to be followed by secondary symptoms, and are equally benefited, under many circumstances, by mercury.

CHAPTER IV.

OF THE FIRST CLASS OF PRIMARY SYPHILITIC DISEASES[1]— GONORRHŒA, ITS VARIETIES AND CONSEQUENCES.

OF BALANITIS.

INFLAMMATION OF THE GLANS PENIS—EXTERNAL OR FALSE GONORRHŒA —CHANCROUS EXCORIATION, ETC.

69. This disease is characterized by more or less redness, and a muco-purulent discharge from the surface of the glans penis, with or without excoriation. Balanitis rarely occurs alone, but is more frequently complicated with a similar condition of the internal surface of the prepuce (posthitis). It is then termed balano-posthitis. As it is rare to see the affections separate, I shall consider both under the title of balanitis.

70. This affection may have a purely venereal origin, or may succeed to connexion with women labouring under leucorrhœa, or other simply inflammatory affections of the vagina, or when this part is covered with secretions of a more or less irritating character. The menstrual discharge will also frequently occasion balanitis, and I have frequently seen great anxiety arise to married men who have suffered from balanitis, the result of connexion with their wives in one or other of the above-mentioned states. Balanitis sometimes owes its origin to a natural conformation of parts, and hence subjects with a natural phymosis, or small preputial opening, may be considered as predisposed to it. Causes of balanitis.

[1] Synonyms. Affections non virulentes,—*Ricord.* Maladies primitives à forme érythémateuse,—*Desruelles.* Catarrhal primary syphilis,—*Wallace.*

Treatment. 71. The treatment of uncomplicated balanitis is extremely simple. When the glans can be denuded, and the inflammation is not very acute, M. Ricord passes the solid nitrate of silver slightly over the surface, covers it with a piece of fine soft linen, and then brings the prepuce forwards over the glans. The penis should be covered with linen compresses soaked in cold water, or the liquor plumbi diacetatis dilutus, and the linen between the prepuce and glans renewed twice in the day; at each renewal of the linen, the parts should be washed with an astringent lotion.[1] It will be occasionally found that lotions of all kinds tend to keep up the irritation. When this is the case, the surface of the glans should be thickly dusted with an astringent powder;[2] this tends to allay the irritation, by absorbing the acrid secretions, and preventing any friction between the glans and prepuce. If the inflammatory symptoms accompanying balanitis run high, and are complicated with phymosis, leeches may be applied in the groin or perineum, aperients administered, and the patient should keep quiet, and live low. Injections of the nitrate of silver, or an aqueous solution of opium, may be thrown up between the glans and prepuce. In cases where balanitis, thus complicated, terminates in gangrene, or this is threatening, Ricord recommends the free exhibition of opium, either by the mouth, or united with camphor in form of enema. Desruelles speaks highly of continued injections or irrigations in balanitis, or balano-posthitis, resorted to when these diseases are complicated with phymosis. To accomplish this, a small canula may be fitted to one of Weiss's self-acting enema syringes; the canula, which should be made of caoutchouc or elastic gum, is to be passed between the glans and prepuce, and thus, without removing it, a continued stream of some

[1] ℞. Plumbi acetatis, ʒj.
Aquæ destillatæ, ℥viij. M. ft. lotio.—*Ricord.*

[2] ℞. Plumbi subcarbonat.
Pulvis cinchonæ, āā ℥j.
Pure tannin, gr. v. M. ft. pulvis.

narcotic or astringent injection [1] may be thrown gently up for some minutes together.[2]

72. The causes of external gonorrhœa are to be sought for in the natural conformation of the penis on the part of the male, and various morbid conditions of the vagina on the part of the female. A natural phymosis predisposes the patient to contract this form of disease; for instance, a person having natural phymosis cohabits with a female having various morbid discharges from the vagina; the discharge gets under the prepuce, and is there retained, as the patient cannot withdraw it to wash the part; the discharge excites inflammation of a more or less active character, which would all have been avoided if the glans could have been retracted and the part washed with a little soap and water. The secretion of the glandulæ odoriferæ, as they are termed, also of itself produces a form of balanitis, without even exposure to impure connexion. This secretion, which, in some persons, is extremely abundant and offensive, is retained by the elongated prepuce on the base and surface of the glans, there irritating and inflaming the parts, and ultimately producing adhesions between the glans and prepuce. Sometimes, when there is a very narrow preputial opening, and the discharge cannot make its way out, large collections of matter are formed, and the patient, unless an operation is performed, is only relieved by gangrene, or sloughing of the whole prepuce. I

Phymosis a cause.

[1] ℞. Decoct. papaveris, h. ij.
Aluminis ust. gr. xx. M. ft. injectio.—*Desruelles.*

Simple tepid water, with alum in the proportion of eight or ten grains to the pint, forms an exceedingly usefnl injection, particularly where large quantities are used.

[2] ℞. Cerati simplicis, vel mellis,
Olei olivæ, āā ℥j.
Hydrargyri chlorid. ʒss.
Ext. opii, ʒj. M.

The above preparation may be introduced between the glans and prepuce by means of a camel-hair pencil; a remedy of great value.

have been called to several cases where such a termination has taken place.

Certain forms of vaginitis, &c. common causes of balanitis.

73. The chief causes of balanitis are to be sought for in the condition of the female vagina. "In examining the vulva, vagina, or neck of the uterus, in females labouring under discharges which have produced balanitis or gonorrhœa in the male, we have observed the mucous membrane covered with papulæ or follicles, more or less developed, constituting a papular vaginitis or utero-vaginitis, sometimes assuming the form of small spots, in size not larger than a pin's head, isolated, or more or less confluent. On the same portion of the mucous membrane we have distinctly seen patches more or less numerous, and varying in extent, which have a striking analogy with the suppurating surfaces of the skin on which a blister has been applied. Again, in some forms of blenorrhagia in the female, we find the mucous membrane of the vagina of an uniformly red colour. At other times the redness occurs in isolated patches, with swelling, heat, and pain, unattended by any secretion. Other cases of this kind give rise to a morbid secretion, the colour and consistence of which are variable. The differences in the character of the secretions appear to have no reference to the causes which have produced them. The discharges from the urethra, vulva, vagina, and uterus, are very various; but the difference has not appeared connected with any one particular lesion more than another. The acute stage generally, whatever may be the particular lesion, causes at its commencement a secretion almost wholly serous, or only consisting of mucus more abundant than usual, which afterwards becomes opaque, purulent, or of a darkish yellow colour, sometimes green, sometimes mixed with blood. The chronic stage often gives rise to a milky secretion of a thickish consistence, similar to that of cheese, or simply to a mucous flux. The chronic discharges also may put on a rusty appearance, and become tinged with larger or smaller quantities of blood. These secretions, whether in the acute or chronic stage, may have no smell, or, on the contrary, may have a very unpleasant odour, particularly where the mucous papulæ exist.

The smell is often so decided, that it is characteristic in a great number of cases. The only differences which result from the particular sort of the blenorrhagia are, that the secretions which come from the uterus are always more mucous, thready, and collected into flocculi; whereas those which escape from the urethra, vulva, or vagina, present a less tenacious character than the others." [1]

74. These forms of vaginitis sometimes occur in patients of the highest respectability, and are capable of producing balanitis in the male. I have seen one or two instances where an inflamed and irritable condition of the vagina in the female, during the latter months of pregnancy, has produced balanitis in the husband, and where a great deal of family distress has been occasioned by the circumstance. The forms of disease on the part of the female I have just enumerated will produce external gonorrhœa, and also gonorrhœa properly so called. Both gonorrhœa and ordinary leucorrhœa recognize the same pathology, i. e. a vaginitis assuming various forms, accompanied by discharges also of varied character; yet in the one instance, that of the impure female, we see gonorrhœa in both its forms, external and internal, constantly produced in the male; whilst in the other, that of the respectable married female, cohabitation takes place almost with impunity, as far as contracting disease is concerned. Hence it has been attempted to establish a differential diagnosis between the two, in which all have equally failed. Hunter, Clarke, and Churchill have failed in doing so, and since the speculum has been so much employed no additional light on the subject has as yet been given.

75. We must decide, in these instances, by the effects produced, by the facts before us, and not on the grounds of any *à priori* reasoning. When we see that blenorrhagia, or the various forms of vaginitis with muco-purulent discharge in the married female, on the one hand, exist for a longer or shorter period, for months, or even years, without producing the

[1] Acton on Venereal Diseases, pp. 172-3.

slightest affection on the part of the husband, or on that of any child which may happen to be born during the continuance of the disease, and observe, on the other hand, forms of vaginitis precisely similar to those which I have mentioned in the impure female, producing balanitis, gonorrhœa, and all their attendant consequences, we must be disposed to admit something specific in the latter case, some form of morbid poison which does not exist in the first.

76. "Between the muco-pus of a pure gonorrhœa and the pus or muco-pus of other discharges, there is a difference precisely similar to that which exists between the pus of a chancre producing a characteristic pustule by inoculation, and the pus of other sores consequent upon sexual intercourse, which does not give this result, although no chemical or physical circumstances are capable of showing in what this difference consists." [1]

Symptoms. 77. The symptoms of balanitis are heat, itching, and redness of the glans penis and the inner surface of the prepuce, the redness being disseminated in patches, as though the surface of the part had been slightly scalded with drops of hot water sprinkled over it. These symptoms are accompanied by a muco-purulent discharge from the preputial opening, and if the glans can be denuded, its whole surface and that of the prepuce are covered with an adhesive flaky matter looking like curd. This is the condition if the glans can be denuded; if it cannot, all we generally observe is a muco-purulent discharge from the preputial opening, though not from the urethra, with heat and swelling at the end of the penis. In fact, the balanitis itself is the most common cause of our not being able to denude the glans penis; the inflammation produces the phymosis, which was not present till the balanitis was contracted. Again, the phymosis may be congenital.

Differential diagnosis. 78. Discharges from the end of the preputial opening, however, with a natural or acquired phymosis, are not all

[1] Baumés, Précis sur les Maladies Vénériennes, vol. i, p. 208.

dependent upon balanitis, as I have described it. They may result, and commonly do result, from a chancre or ulcer, situated either on the glans or prepuce, and producing the inflammation with the discharge from the preputial orifice. If an ulcer of any standing be the cause of the mischief, we can generally detect it from a partial induration felt at the same part of the prepuce under the skin, and a peculiar soreness and tenderness existing in this part, when the penis is pressed or rolled between the fingers. These would be the distinctive symptoms to guide us in a differential diagnosis between phymosis with chancre, and phymosis the result of pure balanitis, since both diseases would be characterized by the same or pretty nearly the same general symptoms; viz. swelling and heat of the end of the penis, with phymosis and discharge from the preputial opening. A balanitis might again exist with a pure gonorrhœa; this is very common, but in this instance the discharge from the urethra can be seen. I mention these complications of balanitis, because their existence with balanitis would materially modify the treatment. They would, when existing, become the epiphenomena of the disease; i.e. its most important features, requiring principally the special direction of the therapeutic agent.

79. Balanitis is in many if not in most instances, complicated with phymosis, and the question naturally arises whether this is to be relieved by an operation or not. If the phymosis be a congenital one, and the patient have contracted a balanitis, in most instances the operation should be performed, as the continuance of the phymosis predisposes the patient to a number of those inconveniences mentioned before, adhesions between the glans and prepuce, and thickening of the latter from chronic inflammation. If the phymosis be an acquired one, produced by the disease, the operation should not be performed. Poultices, cold lotions, purgatives, and, above all, the calomel and opium pommade, will in a few days, in almost every case, enable us to retract the prepuce. An operation in the latter case is unwarrantable, whilst in the former it is not only justifiable, but

Operation for phymosis.

highly advantageous. We shall have more to say of the operation for phymosis when speaking of primary venereal sores complicated with it; but in cases of uncomplicated balanitis, the rules I have given are safe, and have been proved by myself time after time in practice. Balanitis may, if neglected or badly treated, continue for an indefinite period of time, may run on into conditions of superficial ulceration, may produce adhesions of the prepuce to the glans, either partial or total, thickening of the prepuce, and, according to Roux, cancer of the penis. Again, it commonly produces enlargement of the glans in the groin, and occasionally bubo. I have seen the latter in one or two instances.

Secondary symptoms.

80. Secondary symptoms may succeed to simple balanitis, and some modern authors have recorded examples of the fact. If balanitis or chancrous excoriation is suffered to continue for an indefinite period of time, a thickening of the diseased surface always occurs, and a chronic suppuration is established from the abrasion covering the thickened part. In this state of things secondary symptoms will occur in the male, and may be produced in the female, when cohabitation is permitted under such circumstances. I have seen eruptions accompanied by a node on the forehead, loss of the hair, and other symptoms of constitutional syphilis, produced in the wife, where this species of abrasion, with thickening, were the only symptoms in the husband. Some cases have been brought forward in which constitutional symptoms, characterized by copper-coloured patches and papulæ, succeeded to balanitis or discharge from the external surface of the glans and from the prepuce, without ulceration or breach of surface. In the cases mentioned, this external gonorrhœa was followed by the falling off of the hair, and eruptions precisely similar to those which follow primary venereal sores, and these complaints were curable only by mercury. In the first case, the patient had never before any venereal affection till he contracted a balanitis characterized by redness, heat, and itching, of the external surface of the prepuce, to which succeeded a purulent discharge.

81. This form of disease is considered by many modern writers as a variety of gonorrhœa, differing from the urethral variety merely in its seat. In the cases already alluded to, this external gonorrhœa or balanitis was followed by falling off of the hair, and eruptions, precisely similar to those which succeed to venereal sores, and were curable only by mercury. In the first case, the patient had never before had any venereal affection till he contracted a balanitis characterized by redness, heat, and itching, of the external surface of the glans penis and neighbouring portion of the prepuce, to which succeeded a purulent discharge, *without any kind of excoriation or wound*. This was succeeded, in a fourth case, "by copper-coloured patches on the forehead and chest; and a female, with whom this patient cohabited, became affected with heat and swelling of the genitals, pain in making water, and, two months after, an eruption on the inside of the thighs, the nose, and the forehead. The female was declared diseased; put on the use of mercury, with sarsaparilla, and recovered. The first patient (the male) took to himself a second mistress, still suffering from the affection (balanitis), which he did not consider syphilitic, the first mistress having married after recovery. This second mistress soon became affected with the same symptoms as the first, and, two or three months after, a constitutional affection made its appearance, which ultimately assumed a pustular form. The prospect of an advantageous marriage presented itself, and our patient now separated from his second mistress and married. In a short time the wife was affected as her temporary substitutes had been before, and subsequently with eruptions of a like character. The patient and his wife now put themselves under medical care; and the surgeon stated that the only disease in the genitals with which the husband was affected was redness of the glans penis, with purulent discharge; no ulceration, breach of surface, or trace of cicatrix. The patients were put upon mercurial treatment, and both perfectly recovered." These primary forms of disease in the glans and prepuce, marked or characterized by discharges, without ulceration, have of late been supposed to be

Case.

precisely identical in their character with gonorrhœa, differing from it only in their seat. We are inclined, from observation, however, to believe, in many instances this analogy is not correct, though it may hold good in some, since what appears a mere catarrhal affection in the first instance, frequently degenerates into ulceration more or less extensive. Many modern surgeons of experience in the matter we are now considering, state that simple balanitis may produce a chancre, and thus induce secondary symptoms.

82. A very marked example of this occurred in a patient now in the Queen's Hospital; he was admitted for simple balanitis. On examining him a few days after, I was surprised to see a crop of small ulcers on the prepuce. I have in private practice, not only in one, but in several instances, seen a superficial sore appear before a patient was well of the balanitis, and this sore followed by a bubo; in these instances a fresh infection was impossible. The distinctions are perhaps not very clearly defined between a pure catarrhal inflammation of the glans and prepuce, and those very mild forms of syphilis which some writers have termed superficial. Dr. Wallace has recorded a case bearing upon this point, which, in a practical point of view, is so instructive, that I shall introduce it here.

Case. "A lady was brought to Dublin on account of an eruption, and a state of general ill health. She had been some months married, and was pregnant. The eruption did not appear of a doubtful character. It was a syphilitic eruption, of a rubeoloid form, and was accompanied by its almost constant attendants, a superficial disease of the fauces and a condylomatous state of the pudenda and of the orifice of the anus. There were, also, small condylomata in the axillæ. I communicated my opinion to the husband of the lady, who had accompanied her to town, and he denied that he had ever had any venereal disease; but he at the same time admitted, that some months before his marriage he had got, in consequence of a suspicious intercourse, what he called a chafing; that he had consulted Mr. M., who directed for him a wash, by which the disease was removed; that he had been assured

by this gentleman that the complaint was not venereal, and did not require mercury; and that he had taken the precaution of submitting himself to examination before marriage, with the view of making his mind sure that he had no venereal taint; but, on examining him, I found a very slight oozing at the corona, with a very slight thickening of the corresponding portion of the lining of the prepuce; and there existed on some parts of his body slight cutaneous desquamations of a suspicious character." [1] The lady miscarried of a dead child, and the husband and wife were placed under mercurial treatment and recovered.

Recurrence of the disease under various forms.

83. Balanitis is exceedingly liable to return, without any evident cause, after it has been supposed to be cured. It breaks out again and again, at uncertain intervals, showing the irritation still to exist which produced it in the first instance. Sometimes the irritation reappears in its original form, sometimes it gives rise to herpes preputialis, or to eczema of the glans, or to minute and superficial ulcerations, which, after repeated returns, leave behind them some thickening, which may give rise to mild constitutional symptoms, and is capable of producing disease in the female, as the preceding remarks and cases fully show. In such cases the patients must be put on general treatment, a mild mercurial course, the hydriodate of potass with sarsaparilla, and the mercurial vapour-bath.

[1] Wallace, pp. 229-30.

CHAPTER V.

OF GONORRHŒA.[1]

84. GONORRHŒA, a disease of daily occurrence, is perhaps as much or more than any other presented to the surgeon, the source of annoyance to him, and anxiety and weariness to his patient. This, we apprehend, arises in a great measure from the want of a correct knowledge of its modifications and varieties,[2] and consequently an uncertainty in the treatment

[1] Urethritis, acute or chronic,—*Desruelles.* Blenorrhagia,—*Swediaur.* Venereal or syphilitic catarrh,—*Wallace.*

[2] Varieties of gonorrhœa,—*Ricord.*

First species—Gonorrhœa in the female:

Varieties, seated in { the vulva, the vagina, the uterus, the urethra, } may exist alone, or variously combined.

Second species—Gonorrhœa in the male:

Varieties, seated in { the urethra, on the prepuce, or the glans penis, } may exist alone, or variously combined.

Hecker, 'Des différentes espèces des Gonorrhées,' has described the following varieties:

1. Ordinary or specific gonorrhœa.
2. Consecutive gonorrhœa (gleet).
3. Gonorrhœa accompanying syphilis (probably depending on chancres of the urethra).—

more especially adapted to its different forms. Gonorrhœa consists in inflammation, more or less acute, of the mucous membrane of the urethra, or other parts of the genito-urinary passages, accompanied by the secretion of a muco-purulent fluid of a yellow or greenish appearance; pain, itching, or irritation in voiding the urine, with, in the male, repeated and involuntary erections of the penis.

85. The discharges from the male urethra which are produced by sexual intercourse may be reduced to three, and these I term, simple gonorrhœa, ordinary or specific gonorrhœa, and gonorrhœa which is the result of a venereal sore in the urethra. These three kinds are different in the causes which they recognize, their pathology, mode of treatment, complications, and consequences.

86. Simple gonorrhœa results from cohabitation with females during the menstrual period, or when they are labouring under inflammatory or diseased states of the vagina or os uteri; which

4. Gonorrhœa accompanying scurvy.
5. Gonorrhœa accompanying scrofula.
6. Gonorrhœa dependent upon or kept up by rheumatism.
7. By gout.
8. Accompanying various local exanthemata.
9. Accompanying hemorrhoids.
10. Produced by certain conditions of the urine. The crystals of oxalate of lime present in the urine—oxaluria.
11. By masturbation, &c.
12. By continence.
13. By causes acting directly on the parts affected.
14. By sympathy.
15. Occurring in females after delivery.

Most if not all of these varieties must be recognized by those familiar with diseases of this character. Many of them are dependent on specific or ordinary gonorrhœa occurring in certain constitutions; thus, the ordinary specific gonorrhœas, in habits confirmedly rheumatic, gouty, scorbutic, or scrofulous, form varieties of the disease which require most important modifications in treatment.

furnish discharges of a more or less acrid or irritating nature. These gonorrhœas are not capable of propagation in the same way that an ordinary specific gonorrhœa generally is; in fact, they are not contagious. Many writers have endeavoured to discover some distinguishing marks between gonorrhœa, and other discharges from the female which we may call leucorrhœal, and which, under certain circumstances, give rise to simple gonorrhœa in the male. That differences do exist in the nature of these discharges on the part of the female we are perfectly convinced; differences which the speculum cannot distinguish, but which are evident in their effects upon the male. These various discharges produce in the male, occasionally, a disease which may be termed simple gonorrhœa, totally different from a specific gonorrhœa in duration, intensity, and consequences; and, still further, not to be cured by the same remedies.

87. The late Mr. B. Bell was of opinion that discharges from the male urethra, accompanied by heat and scalding on making water, may succeed to connexions with women suffering from fluor albus.[1] He merely remarks, that such discharges generally subside much more quickly than an ordinary gonorrhœa. He mentions its continuance from this cause eight or ten days, and cautions young practitioners against giving precipitate opinions on such cases. I have frequently been consulted by persons labouring under discharges of this character, which have been communicated by females with whom they had been in the habit of cohabiting, and who had never perceived any disease till they visited their mistresses after dining out and drinking freely; then a discharge, with scalding on micturition, has been set up, which has continued a few days, been rendered worse by specific remedies, and yielded to low diet, aperients, and an injection.

88. We believe, with the best pathologists of the day, that

[1] See a remarkable case recorded by him, vol. i, p. 425, of his Treatise on the Venereal Disease.

gonorrhœa, though the result of impure cohabitation, and hence termed a venereal disease, is an affection of a totally different character to the primitive syphilitic ulcer. We do not believe the opinions of the late Dr. Wallace and others to be true, that syphilis and gonorrhœa are varieties of the same disease;[1] modern testimony, drawn from the results of inoculation, universally proving that the pus of chancre has never produced gonorrhœa, and the reverse.[2]

Causes of gonorrhœa.

89. The causes of gonorrhœa are various; the most frequent, however, is cohabitation with a female affected with the same disease. It is certain that inflammation, with mucopurulent discharge from the urethra, may be the result of connexion with women who labour under various forms of disease, such as inflammation of the vagina, the lochial or menstrual discharges, fluor albus, ulcerations of various kinds not syphilitic, different morbid conditions of the os uteri, amongst which Cullerier and Ratier specially mention the cancerous ulcer. It appears to me evident that, in the present state of science, it is impossible with certainty to ascertain what may be the true cause of that gonorrhœa which succeeds to cohabitation, unless the female be submitted to examination with the speculum: and hence M. Ricord states that no confidence is to be placed upon any statements of this character, unless the speculum have been employed as a means of confirming our diagnosis; the condition of the constitution also at the time of exposure to infection must be ranked as a predisposing cause. Gonorrhœa is also due to other causes apart from sexual intercourse, as masturbation, habitual costiveness, inflammation of the prostate gland, certain morbid conditions of the bladder or ureters, particularly the presence of calculi in these parts, piles, the excessive or immoderate use of wine or fermented liquors generally, and the warmer spices, more particularly cayenne pepper. In children this affection is sometimes de-

[1] On the Venereal Disease, &c., p. 284, and elsewhere.

[2] See Ricord, and the authors quoted by him in his work already referred to; also Cullerier, in Lucas Championniere's work, p. 384, &c. &c.

pendent upon teething or intestinal worms. It also recognizes for its cause a gouty or scorbutic diathesis, or succeeds to the suppression of habitual discharges, or the cure of old standing cutaneous eruptions. In addition to all these causes, which are strictly internal, gonorrhœa is produced by external violence or injuries to the penis, and the operation of a second class of causes of various kinds which are external.

Pathology. 90. Gonorrhœa consists in an inflammation more or less diffused of the mucous membrane of the urethra, &c. Dr. Wallace considers this inflammation, from its diffused or erratic character, to be of the erysipelatous kind; hence Desruelles terms it "inflammation érythémateuse." The inflammation does not commonly affect the whole surface of the urethral mucous surface; when it does so, it assumes the name of "gonorrhœa virulenta,"[1] and is generally accompanied with violent symptomatic fever. The points in which the inflammation remains most commonly fixed, or in which it is manifested with greatest intensity, are the fossa navicularis, and the vicinity of the bulb: this arises from the anatomical disposition of the mucous membrane, which, in this situation, is much more intimately adherent to the erectile tissue beneath it. Gonorrhœal inflammation may be diffused over a wide surface, and "may involve at the same time the whole of the urethra, the bladder, the testicles, the glans and prepuce in the male; and in the female the nymphæ, clitoris, labiæ, vagina, &c.; and thus commencing at the preputial end of the penis, in the fossa navicularis, it not unfrequently creeps slowly on to the posterior parts of the urethra, to the bladder, or to the testicles, while it decreases or ceases entirely in the parts first affected."[2] It may be confined to the mucous membrane itself, or extend to the tissues beneath it; in the latter instance the irritation constantly determines a flow of blood into the cells of the erectile tissue of the corpora caver-

[1] The term gonorrhœa virulenta is restricted by some modern authors to discharges dependent on a venereal sore in the urethra.

[2] Wallace, pp. 237-8.

nosa and corpus spongiosum, which occasions a continual tension of the penis. Occasionally the inflammation becomes located in some part of the canal, producing thickening, effusion into the submucous cellular tissue, and in some cases ulceration; in these forms the disease assumes more of a local character, and is not so much disposed to spread by continuity of tissue.

91. The general symptoms of gonorrhœa are too well known to need description, yet those which indicate its localization in particular parts of the urethra may be detailed with advantage. When the disease is confined to the fossa navicularis, it is only in this portion of the passage that uneasiness or pain is felt when the patient voids his urine; the glans is more or less swollen, and its lips tumefied and red. On pressing and rolling the urethra between the thumb and finger, a distinct thickening is felt, as though a portion of a sound had been introduced into the urethra; the pressure is also painful to the patient. The greater and more marked the thickening of the urethra in this situation the stronger is the presumption that the disease is localized there, and does not extend to other portions of the canal. The discharge, under these circumstances, is trifling, though very teasing to the patient; it is constantly presented at the orifice of the urethra. When the inflammation predominates, or is fixed in the straight portion of the urethra, between the glans and the bulb, the patient has no pain in the perineum, but he experiences severe pain in making water, has frequent erections of short duration, and the discharge is more copious than when the disease is confined to the fossa navicularis. Symptoms.

92. If the disease be located in the bulbous portion of the urethra, the patient has pain in the perineum increased by pressure, a constant desire to void his urine, with frequent erections of the penis. The discharge is abundant, accompanied with great pain, and the stream of urine is diminished. When the membranous portion of the urethra is chiefly affected, the pain is severe in the perineum and the neighbourhood of the anus; the desire to void the urine is in many cases con-

stant. The prostate and testicles are commonly enlarged and painful, the spermatic vessels congested, as well as the vasa deferentia. Consecutive diseases of the bladder, prostate, and testicles are more frequently to be feared when the gonorrhœa occupies principally the two last-mentioned seats.

Sympathies.

93. During the course of a gonorrhœa the patient is not unfrequently tormented with pains in the groins, weight and dragging in the testicles, irritation in the rectum, tenesmus, with retention or incontinence of urine. These depend chiefly upon the localization of the primitive disease, and are easily explained by the anatomical relations of the urethra. Fever of an inflammatory or intermittent character is sometimes present, and affections of the joints, which have been described by some authors under the title of gonorrhœal rheumatism.

Varieties.

94. Gonorrhœa is not always confined to the organs of generation, or their dependencies; hence varieties in its seat, owing either to the sympathies of other parts during the presence of an urethral gonorrhœa, or from the direct application, from accident or carelessness, of the matter to a healthy mucous surface. These varieties in the seat of gonorrhœa have chiefly been observed in the eye, the nose, and the rectum.

Consequences and terminations.

95. The more acute forms of gonorrhœa may terminate in resolution, or chronic discharges simply, a mere supersecretion, without ulceration or breach of surface; to ascertain this, however, when a discharge continues indefinitely, without being materially influenced by remedies, the canal of the urethra in the male, or the vagina in the female, should be carefully examined. The other more ordinary terminations of gonorrhœa are ulcerations of the urethra, stricture, and diseased conditions of the bladder, prostate, or testicles.

Differential diagnosis.

96. Gonorrhœa can hardly be confounded with any disease except a primary venereal sore situated in the urethra. From this it is to be distinguished by the character of the discharge, which, in the latter instance, is serous, sanious, or bloody, and less in quantity than in the former, and by the presence of a circumscribed induration in some part of the urethra. The lips of the urethra may be everted, and when a sore exists in

this situation it can occasionally be seen. In many instances, however, the ulcer is further down the passage, and then the latter mode of examination fails.

First stage of specific or ordinary gonorrhœa.

97. In order to understand clearly the principles upon which the treatment of a specific gonorrhœa is to be conducted, it will be necessary to premise that this disease admits of a division into three stages, to each of which a distinct treatment is applicable; and it is owing perhaps to prescribing for the first stage what is only suited to the second, or to the second what should have been employed in the first, that the disease is so often and so long protracted. The first stage of gonorrhœa, or that of incubation, is characterized by the absence of acute inflammation; there is slight pain or heat in micturition, puffiness and redness of the lips of the meatus urinarius, which are sometimes everted and sometimes stuck so fast together by an adhesive muco-pus that we have some difficulty in separating them; there is also a slight muco-purulent discharge, and a flattening in the stream of urine. This is the first stage of gonorrhœa; and when these symptoms occur wholly or in part from four to ten days after a suspicious intercourse, we may be pretty sure a gonorrhœa has been contracted, and, if not cut short, will run on quickly to the second or inflammatory stage. It is to the first stage only that the abortive treatment about to be spoken of is limited.

Under what circumstances the abortive treatment should be employed.

98. The treatment calculated to cut short a gonorrhœa in its first stage should not, as a general rule, be resorted to after forty-eight hours from the first invasion of the disease, and is then not in all cases successful. Yet when the protracted character of discharges of this kind is considered, their frequent, various, numerous, and even dangerous complications, and sometimes their disastrous consequences, we cannot but do right to recommend this treatment when the patient applies in proper time, and there is nothing to contra-indicate its employ. An additional reason that this treatment, under such circumstances, should be employed, is the constitution of certain patients; the scrofulous, the rheumatic, the gouty, and

those troubled with chronic diseases of the skin always suffer much from gonorrhœa; and if the disease once becomes established in the system, it is very difficult to cure.

Treatment of the first stage.

99. The treatment to arrest the first stage of gonorrhœa consists either in the employment of the balsam of copaiba in large and frequently repeated doses, or the use of strong injections of the nitrate of silver. When it is determined to employ the latter method alone, or combined with the former, the urethra must be injected by means of a glass syringe, as frequently as the patient can bear it, during twenty-four hours, with a solution of the nitrate of silver, in the proportion of two grains to the ounce of water. The injection must then be left off to see its effect. Very frequently this treatment at once cures the patient, and no second stage sets in; under other circumstances it may hasten the onset of the second stage.

Symptoms of the second and third stages.

100. The first stage of gonorrhœa speedily passes into the second, in which the inflammatory symptoms are more marked, and the discharge altered in character. The penis is red and swollen, the urethra feeling like a cord when rolled between the fingers, micturition is frequent, and attended with severe pain, and the patient is tormented with frequent and involuntary erections of the penis. Under some circumstances, if the inflammation run high, severe symptomatic fever may be present. In the third stage all these symptoms have subsided, and there only remains slight discharge with varied pathological conditions of the urethra.

101. It is of immense importance, from reasons already adduced, that gonorrhœa should be prevented, or cut short in its commencement, since its duration, in many instances, is almost indefinite, and its consequences so serious. Patients, in a state of alarm after a suspected connexion, frequently seek the advice of their surgeon with the following symptoms: slight irritation in the urethra, dragging of the penis and testicles, uneasiness in voiding the urine, with redness and tumefaction of the lips of the meatus, and a slight increase in the

natural secretion of the mucous membrane of the urethra itself. These symptoms do not indicate that a gonorrhœa has been contracted, since an excessive excitement of the organs of generation, without infection, might produce them; but in the positive absence of any means of a differential diagnosis between this and the commencement of actual gonorrhœa, it behoves the patient to be careful. Some are of opinion that many gonorrhœas might be avoided, and the symptoms cut short on the onset, if the patients did not commit errors or excesses in diet at this period, and continue to expose themselves to all kinds of excitement. This opinion is deserving of the more attention, since we commonly see a discharge from the urethra set up and continue for some days after a debauch, and then of itself subside.[1] When the symptoms we have indicated make their appearance, the patient should strictly adopt and adhere to the lowest possible diet, repose as much as possible in the recumbent position, and take smart aperients with diluent drinks. The warm bath must be avoided; this, of itself, under such circumstances, has frequently produced the disease; the cold bath, in warm weather, may be used.

102. A true gonorrhœa may be either acute in its commencement, or ushered in with symptoms so mild, and apparently so trivial, as to be termed chronic; the disease also may assume a variety of shades of intensity, varying between these two extremes. Against the first form a pure antiphlogistic treatment should be adopted. Bleeding from the arm, from the vena dorsalis penis, aperients, low diet, with local bleeding, by means of leeches, from the perineum, with the warm bath, and complete repose of the organs affected, constitute the remedies especially applicable to the stages of acute gonorrhœa. Little medicine is here requisite beside small doses of the nitrate of potash, administered in a copious

[1] The researches of M. Lombard, of Geneva, prove that the excessive use of malt liquors, wines, &c., tends to produce discharges from the urethra, and inflammation of its lining membrane.

draught of barley-tea.[1] The gonorrhœal discharge may be ushered in with symptoms less acute than those just described; and under these circumstances general bleeding may be unnecessary, although, if the patient be plethoric and of full habit, general or local depletion in the commencement will most materially facilitate our chance of a speedy cure.[2] Again, in that form of gonorrhœa which is chronic from the commencement, it will be well at first to examine carefully the urethra, and if we find a part which is indurated, hot, and painful on pressure, to apply a few leeches over it.[3] It is merely necessary to state that local bleeding, employed for these purposes, is not to be resorted to for the removal of discharge merely; nor without the symptoms of inflammation on some point of the urethra are evident. If employed when the membrane is lax, and no inflammation is present, where the disease is merely a gonorrhœa and not an urethritis, we shall prolong the affection instead of cutting it short.

103. An antiphlogistic treatment, although calculated to facilitate the action of other remedies in the cure of gonorrhœa, is not calculated of itself, at least but rarely, to accomplish this object. Hence another plan of treatment has been

[1] ℞. Sodæ carbonat. gr. xx.
Sodæ potass.-tart. ʒj. M.
Bis terve die sumend. ex aquâ tepida; or added to half a bottle of soda water.—*Carmichael.*

[2] "Négliger de pratiquer la saignée dans ce cas, c'est laisser échapper l'une des indications les plus pressantes." (Desruelles, p. 421.)

[3] To illustrate by a case the use of topical bleeding from a point of the urethra, in that form of gonorrhœa which is termed chronic: A gentleman consulted me, who had been the subject of a slight discharge from the urethra for five months; he had frequent desire to void his urine, with a constant and troublesome tenesmus; he had tried remedies of all kinds, and injections, during this period, with partial benefit and occasional injury. On examining his urethra, which had not been before done, I discovered tenderness, with thickening of the urethra, in the perineum. Four leeches were applied with great benefit, and by their repetition at intervals, three or four times, he lost his pain, his tenesmus, and the discharge.

framed, which is termed "revulsive." This consists in the employment of remedies which are supposed, by producing a specific action of their own on the lining membrane of the urethra, to supersede that of gonorrhœa: these remedies are principally copaiba, cubebs, turpentine, the preparations of iron, iodine, and cantharides, with injections. Every practitioner must daily witness the uncertainty of the revulsive treatment of gonorrhœa employed alone, and the change from remedy to remedy, with but partial benefit to the patient. In this uncertainty, many authors have endeavoured to lay down certain rules at what period the revulsive treatment may be resorted to with the most certain hope of realizing its full and curative effects. "When the acute stage has ceased, although the patient may yet continue to be troubled with erections, and although the penis may be heavy and uneasy, and the glans and lips of the meatus still red and slightly swollen, I have recourse to those remedies which are termed 'par excellence' anti-gonorrhœal, which, however, I abandon, to have recourse again to antiphlogistics, if their employment occasion the least increase of inflammation."[1] The use of specific remedies should be limited to the purulent stage of gonorrhœa, when the more acute symptoms of inflammation have been subdued.

104. "When," says Dr. Wallace, "an impression has been made on the inflammatory symptoms, and that they cease to advance or remain stationary, the urethra should be injected every morning with a solution of the nitrate of silver, made in the proportion of fifteen or twenty grains to the ounce of distilled water, and the patient should be placed under the combined influence of mercury and the balsam of copaiba and cubebs."[2]

[1] Ricord, pp. 725-6.

[2] Wallace, p. 257. In this stage of the disease Dr. Wallace administers five grains of the blue pill, with a grain of opium every night; we apprehend the benefit said to be derived from the practice is due to the opium and not to the mercury, as we do not recognize the principles on which it is given "to prevent bubo and secondary symptoms." We are likewise

105. We are not to conclude from what has been said, that in all instances general and local bleeding are to be employed in gonorrhœa before we have recourse to those remedies that are more particularly termed specific. Thus, in scrofulous and weak subjects, or those previously troubled with nocturnal emissions, the inflammation may be of so passive a character that it will be proper to have recourse at once to the revulsive treatment, with injections. In all cases, however, as I have before said, a careful examination of the state of the urethra and the constitution of the patient should be instituted.

Of the use of specific remedies.

Copaiba.

106. The copaiba balsam is one of the most common remedies used in the revulsive treatment of gonorrhœa, and that upon which most dependence is to be placed. It may be employed early in the disease, unless the inflammation of the urethra be very acute; it is then only to be used when the symptoms are in some measure mitigated by general and local bleeding, &c. If the disease be subacute, it may be administered during the period that local bleeding from the perineum, &c. is practised. In the chronic forms of the complaint it may at once be employed. Ricord remarks, that it is only against the urethral form of gonorrhœa that copaiba is efficacious; he believes it possesses little or no influence over the vaginal or uterine varieties, &c. Both this author and Desruelles think it is much more effectual given alone than in a state of combination with other remedies, and recommend it to be given, as the most pleasant way and least likely to disturb the stomach, on the surface of a glass of white wine or lemonade. Dr. Wallace, on the contrary, believes its effects are more marked in a state of combination, at least that the combination is more beneficial than the balsam taken singly.[1]

of opinion that the nitrate of silver should be employed in the first instance in this stage, in the proportion of a quarter of a grain of the salt to the ounce only.

[1] R. Bals. copaibæ.
Pulv. cubebæ, āā ℥j.
Liq. potassæ, ℥ij.
Pulv. acaciæ, ℥ss.
Aquæ rosæ, ℥vj. M.

This author combines it with cubebs, or alternates one remedy with the other. It may be given by way of enema when the stomach will not bear it, but, when so employed, the dose must be much larger than when given by the mouth. The copaiba has likewise been administered with success in large doses at the very onset of gonorrhœa, however acute, and without any preparatory treatment. Monteggia and Fuller administer from half an ounce to an ounce of the balsam for a dose night and morning, at all periods of the disease.[1] M. Delpech succeeded in curing four hundred cases by administering two drachms and upwards for a dose three times a day; if the inflammation was acute, general bleeding preceded its employ.[2] Rossignol was successful in three hundred cases of gonorrhœas of all kinds. He employed large doses of the medicine uncombined, and did not submit his patients to any preparatory treatment, or any dietetic regimen.[3] The average duration of treatment in these cases was eight days. The method we have just described must be employed with caution; and in most cases where the patient is plethoric, it would be well to accompany or precede it with a general bleeding. We think it might be then employed with pretty general success in cutting quickly short a gonorrhœa, when a patient applies immediately after having contracted it. M. Lallemand, in repeating the experiments of M. Ribes,[4] concludes, that although the large doses of copaiba succeed sometimes in cutting short an acute gonorrhœa, they sometimes augment the inflammatory symptoms and the discharge. I have seen one or two patients in which an incurable incontinence of urine has been brought on by large doses of copaiba.

107. The balsam of copaiba may be administered alone in

[1] Bulletin de la Société Médicale d'Emulation, 1822.

[2] Revue Médicale, t. vii, p. 403.

[3] Dictionnaire de Merat et Delens.

[4] Mémoire sur l'emploi de baume de copahu à haute dose dans la gonorrhée et l'engorgement consecutif du testicule. Loc. cit. et Revue Médicale, t. ix. M. Ribes gives from two drachms to an ounce of the balsam for a dose, to cut short a gonorrhœa in the commencement.

wine or lemonade, as I have said, and this is the best way when it is used in the commencement of the disease. It may also be given in various forms of combination.

108. The essential oil of copaiba, the resin of copaiba, the balsam inclosed in capsules, the alkaline solution, and a soluble extract prepared by Morson, have been employed with the view of getting rid of the unpleasant smell and taste of the balsam: these remedies, however, are none of them entitled to the same confidence as the latter remedy.[1]

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[1] *Particular forms for the administration of Copaiba.*

MIXTURES.

℞. Balsam. copaibæ, ℥j.
Mucilaginis gummi acaciæ, ʒij.
Vini Xerici, ℥iv. M. (Val de Grace.)
A fourth part twice a day, or more frequently.

℞. Balsam. copaibæ, ℥j ad ℥ij.
Aquæ, ℥iv.
Vitelli ovi, No. 1.
Liq. opii sedativ. ♏ x ad xx. M. (Cullerier.)
The quarter part, or more, night and morning.

℞. Balsam. copaibæ.
Syrup. tolutanos.
Mucilaginis gummi acaciæ, āā ℥j.
Aquæ rosæ, ℥iij.
Sp. ætheris nitric. ʒiij.
The quarter to the half, night and morning.

℞. Aquæ menthæ pip.
Sp. vini rect.
Balsam. copaibæ.
Aquæ aurantii, āā ℥ij.
Sp. ætheris nit. ʒj. M. (Chopart.)
Two large spoonfuls, three times a day.

℞. Resinæ copaibæ.
Sp. vini rect.
Syrup. bals. tolutan.
Aquæ menthæ pip.
Aquæ aurantii, āā ℥ij.
Sp. ætheris nit. ʒij. M. (Chopart.)
Three or four large spoonfuls, night and morning.

109. The piper cubebæ is employed in the revulsive treatment of gonorrhœa, after the same manner as the copaiba. Piper cubebæ.

PILLS.

℞. Sapo. Hispaniolæ, ʒij.
Balsam. copaibæ, ʒj.
Pulv. glycyrrhizæ, q. s. ft. pil. 120.
Dose.—From 15 to 40 a day, at intervals.

℞. Ext. catechu, ʒss.
Bals. copaibæ, ʒiij.
Terebinthinæ chiæ, ʒj.*
Sanguinis draconis, ʒss. M.

To be made into pills or boluses of ten grains, from ten to thirty of which are to be taken daily, at intervals.

℞. Ext. catechu.
Bals. copaibæ, āā, ʒiij.
Hyd. chlorid. ϑj.
Pulv. glycyrrhizæ, q. s. ft. pil. 150.
Dose.—Twelve a day, at intervals.

When employed as an enema, the dose of the balsam should be from half an ounce to an ounce.†

INJECTIONS.

℞. Bals. copaibæ.
Vitelli ovi, āā, ʒss.
Infus. rosæ, ʒxv. M.

℞. Bals. copaibæ, ʒj.
Sacchar. alb. ʒj.
Sp. vini, ʒvj.
Aquæ destillat. ʒxiv.
Ext. opii, gr. vj.

Mix the balsam with the sugar, then add the alcohol and the water gradually; pass the injection through a funnel with a view of extracting those portions of the balsam which may not be dissolved. This injection is employed at Val de Grace, in chronic gonorrhœa, complicated with cystitis.

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* I have substituted the chia turpentine for the colophane, or powdered yellow resin, of the original prescription.—L. P.

† See Velpeau, Recherches et Observations sur l'Emploi du Baume de Copahu, et du Poivre Cubèbe, administrée par l'anus contre la blennorrhagie. Archives générales de Médecine, t. xiii, p. 45.

It may be administered in moderately large doses on the onset of an acute affection, with a view of at once cutting it short; when employed, however, under these circumstances, the same rules must be observed as those we laid down for the administration of copaiba. The cubebs may also be given in chronic gonorrhœa, and in gleet, separately, combined with copaiba, or united with some preparation of iron. It may also be employed in form of enema.[1]

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[1] *Particular Forms for the exhibition of Cubebs.*

MIXTURE OF THE CUBEBS AND COPAIBA.

℞. Bals. copaibæ, ℥ss.
Pulv. pip. cubebæ, ℥j.
Vini Xerici, ℥iij.
Aquæ rosæ, aurantii, vel menthæ, ℥v.
Pulv. acaciæ, q. s. ft. mist.

Employed with great success at Val de Grace, in acute or chronic urethritis.

ELECTUARY OF CUBEBS.

℞. Pulv. pip. cubebæ.
Sanguinis draconis.
Pulv. ratanhiæ.
Ext. catechu, āā. ʒij.
Bals. copaibæ, q. s. ft. elect.

Dose. From two to four drachms in the twenty-four hours, in chronic gonorrhœa, or gleet.

PILLS OF CUBEBS AND COPAIBA.

℞. Pulv. pip. cubebæ recentis, ℥j.
Balsam. copaibæ, ℥ss.
Vitelli ovi, q. s.

To be made into pills of five grains each. *Dose.* From six to sixty a day, at intervals.

℞ Pulv. pip. cubebæ, ℥ss.
Balsam. copaibæ, ʒij.
Ferri sulphatis, ʒj.
Resinæ flavæ, v. terebinthin. chiæ, ʒiij. M.

To be made into boluses of ten grains each. *Dose.* From fifteen to

110. Many other remedies may be resorted to in the protracted forms of chronic gonorrhœa: these are chiefly the preparations of iron; chalybeate waters; iodine, particularly in its combination with iron, so successfully employed by Other remedies.

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thirty a day, at intervals. In chronic gonorrhœa, or gleet, in lax constitutions.

℞. Pulv. pip. cubebæ, ʒj, ad ʒij.
Ferri carbonat. ʒss, ad ʒj. M. ft. pulv.

This mode of exhibiting cubebs combined with the carbonate of iron is much and successfully employed after the acute symptoms of a gonorrhœa have subsided. One powder should be taken three times a day.

SYRUP OF CUBEBINE.

Of the hydro-alcoholic extract of cubebs, ʒxij.
Simple syrup and mucilage, Oj. M.

One ounce of this syrup contains a little more than two drachms of the powdered cubebs. Its dose can be regulated from this knowledge of its strength.

Cubebs and copaibæ may be advantageously given with the Inf. pareiræ bravæ, or Inf. diosmæ crenatæ in gleets and gonorrhœa complicated with affections of the bladder and prostate.

LOZENGES OF CUBEBINE.

Cubebine, 8 parts.
Mucilage of gum tragacanth, 1 part.
Liquorice powder, q. s.

To be made into lozenges, each containing six grains of cubebine.

THE OLEO-RESINOUS EXTRACT OF CUBEBS.

Obtained by distilling the cubeb pepper with water, and separating the volatile oil thus formed; treating the residue with alcohol; drawing the latter off by distillation, evaporating to the consistence of syrup, and then mixing with the volatile oil obtained by the first process. This remedy is more active and certain than the powder of cubebs, and much pleasanter to take.

Ricord, Richard, and Henry;[1] lead,[2] cantharides, and turpentine.[3] In all instances, however, of chronic discharges from the urethra, this canal should be carefully examined, to determine, if possible, the pathological conditions which keep up or are associated with the discharge; without this we must be at a loss for correct indications, we must prescribe at hazard, and our patient's disease may be prolonged indefinitely. It is often of great service to employ small local bleedings from the perineum at the time we are using astringent or tonic injections, or the remedies alluded to in the present chapter.

Use of mercury in gonorrhœa.

111. I have hitherto said nothing about the use of mercury in gonorrhœa, because I do not believe in the specific effect of mercury over purely gonorrhœal diseases. Dr. Wallace employed it constantly in gonorrhœa till the system was brought slightly under its influence, with the view "of preventing bubo and secondary symptoms." I believe this opinion to have originated, as I have before stated, in a false notion of the pathology and nature of this disease. Whilst, however, I deprecate the use of mercury as a specific remedy in go-

[1] ℞. Ferri iodidi, gr. ij, ad v, or more.
Pulv. opii, gr. ¼.
Mucilaginis, q. s. ft. pil.
Ter die sumend.

[2] ℞. Plumbi acetatis, ℈j.
Bals. copaibæ, ʒj.
Pulv. glycyrrhizæ, q. s. ft. pil. xxiv.
Dose. One pill to eight. Employed with advantage by Desruelles in chronic gonorrhœa.

[3] ℞. Terebinthinæ chiæ.
Sanguinis draconis, āā. ʒij.
Olei terebinth. q. s. ft. pil. xxx.
Dose. From three to six or more in the day.

℞. Guaiaci resinæ pulv.
Terebinthinæ chiæ, āā ʒj. M. ft. pil. xxiv.
Capt. iii. *v.* iv. bis terve die. In gleet, or chronic gonorrhœa.

norrhœa, I think it a remedy of great utility in the latter stages of this affection, exhibited with a view of removing those morbid changes in the urethra which long-continued chronic inflammation has occasioned. With this object it may be advantageously employed in the manner laid down by Dr. Wallace. "When," says this author, "gleet or chronic gonorrhœa is connected with an indurated state of the urethra, &c., it will be prudent to submit the patient to a short course of mercury, partly because the indurated and narrowed state of the urethra often depends on the specific effects of the venereal poison, and partly because, even when this is not the case, an alterative course of mercury frequently offers the best remedy. Indeed I have, on many occasions, experienced much pleasure from observing not only the gleety discharge, but also the contracted and indurated state of the urethra to disappear, as soon as the patient's constitution was brought under the specific influence of mercury."[1] Dr. Wallace recommends, as exceedingly efficacious, a combination of calomel with antimony and opium.[2]

112. Many surgeons object to the use of injections in gonorrhœa, fearing that they frequently occasion stricture, and other morbid conditions of the urethra. I am however of opinion, that a long-continued irritation or inflammation of the urethra is much more likely to give rise to these evils, and hence it is of consequence to cure a gonorrhœa by the means which will accomplish this object most quickly, at the same time they do it safely. It is true that injections require great caution in their use, and their injudicious employment is frequently followed by serious consequences, but, in these in- Use of injections.

[1] Op. cit. p. 285.

[2] R. Hyd. chlorid. gr. j ad iij.
Pulv. antimon. gr. iij ad v.
Pulv. opii, gr. ss. M.
Conf. aromat. q. s. ft. pil.
Nocte maneque sumend.

If the disease occur in a gouty or rheumatic constitution, colchicum may be substituted for the antimony in the above prescription.

stances, the blame rests with the surgeon, and not with the remedy. Injections should generally be used twice or three times in the day, and the fluid injected should be made to remain in the urethra a minute or two before it is discharged.

In the acute forms of gonorrhœa, injections are inadmissible; they should be employed as soon as this stage is passed, and in cases chronic or indolent from the commencement, they may at once be used.

To cut short a gonorrhœa at once, when a patient applies before the acute stage has commenced, Ricord prefers injections of the nitrate of silver, which he employs of the strength of two grains to eight ounces of distilled water,[1] gradually increasing the strength as long as no irritation is produced. When the acute stage has passed, this surgeon generally employs the acetate of lead[2] for a few days, but has recourse again to the nitrate of silver in stronger solution, if the lead does not quickly succeed. Dr. Wallace recommends the nitrate of silver in the proportion of fifteen grains to the ounce of water; Desruelles, a scruple to the pint; and likewise a pomade to smear over bougies, and then passed into the urethra.[3] Dr. Wallace employs the nitrate of silver as long

[1] ℞. Argent. nit. gr. ij.
Aquæ destillatæ, ℥viij. M. ft. injectio.

[2] ℞. Plumbi acetatis, ℈ij.
Aquæ rosæ, ℥vj. M.

This strength is for the male urethra; if used as an injection in vaginal gonorrhœa, &c. the quantity of the acetate of lead may be increased as far as an ounce to the pint of water.

[3] ℞. Argent. nitratis, ℈j.
Aquæ destillatæ, ♎j. M.
As an injection in chronic urethritis.

℞. Adipis, ℥j.
Argent. nitratis, gr. iv. M.

Of use in the same affection, smeared upon a bougie, and thus passed into the urethra.

Injections should never be used sufficiently strong to cause severe pain in the urethra; mucilage and camphor are advantageously added to prevent this.

as any morbid sensibility exists in the urethra; when this has ceased, and the discharge still continues, he has recourse to solutions of the bichloride of mercury, the acetate of zinc, or the sulphate of copper; the chloride of zinc has also been lately very successfully employed.[1]

113. A vast variety of injections are employed in the various forms of chronic gonorrhœa, those which I have already indicated are most generally used and successful. When the disease has become perfectly atonic, and all morbid sensibility has disappeared, or when the patient is merely teased with a drop or two of mucous discharge oozing from the urethra once or twice in the day, injections of wine are used extensively both by Ricord and Desruelles, and with much success, alone, or combined with tannin.[2] The infusion of galls[3] with

[1] ℞. Hydrarg. bichlorid. gr. iv.
Aquæ dest. ℥viij. (Wallace.)

℞. Zinci acetatis, gr. xij.
Aquæ, viij. M.

℞. Cupri sulphatis, gr. xij.
Aquæ, ℥viij. M.

℞. Zinci chloridi, gr. viij.
Aquæ, ℥viij. M.
The strength gradually increased.

[2] ℞. Aquæ rosæ, ℥iv.
Vini rubri, ℥ij. M.

The quantity of wine gradually increased, till at length it may be employed pure. Desruelles adds a sixth or an eighth part of brandy.

℞. Vini rubri, ℥vj.
Tannin, gr. xviij. M.

For the male urethra; for the vagina, the quantity of tannin may be doubled, or still further increased. I have found this injection very valuable.

[3] ℞. Gallæ, ʒj, ad ʒij.
Aluminis sulph. ℈ij.
Aquæ ferventis, ℥viij. M. ft. injectio.

alum is also useful, and lately M. Ricord has employed with great success the iodide of iron.[1] In weak solutions the iodide of iron has frequently arrested the gonorrheal discharge in four or five days, in other instances it has brought on an acute attack of urethritis; but in these instances, when the inflammation has subsided, the patient has been cured of his gonorrhœa. In these instances, the average duration of the treatment has not been more than seven or eight days; in a third series of cases the patients have been unable to bear the irritation which injections of the iodide of iron occasioned, and consequently its employ was given up.

114. It will often be found of great service to vary the character of the injection, when one appears, from continued use, to have lost its effect: we shall also find that some patients bear one kind of injection better than others; hence I have found persons much benefited by port wine and tannin, who could not bear the weakest solution of the nitrate of silver.

115. Ricord, Fricke of Hamburg, and Desruelles, agree in opinion, that gonorrhœa is kept up commonly from the contact of the two sides of the urethra; and hence it was proposed by Fricke to introduce, by means of an elastic gum catheter or bougie, a fine piece of lint into the urethra, and let it remain there, removing it only at each period of making water; the lint may be employed dry, or soaked in any astringent injection. The practice has been followed by occasional success.[2]

116. Sometimes all our remedies are unsuccessful in checking the discharge; it then becomes necessary to examine carefully the urethra, to discover upon what pathologic condition

[1] ℞. Ferri iodidi, gr. iij.
Aquæ dest. ℥vj. M.

The quantity of the iodide may be gradually increased. Its employ requires caution and watchfulness.

[2] See Ricord, op. cit. p. 745, and in the Gazette des Hôpitaux; also Desruelles, op. cit., and Fricke, Lettres au Dr. Desruelles, &c.

the continuance of this depends. In cases of morbid sensibility of one portion of the canal only, the solid nitrate of silver may be directly applied to it, by means of the "port caustic" of Lallemand, or any other convenient instrument. When most other means have failed, and a running still continues, with uneasiness, or morbid sensibility in the urethra generally, or in several parts, Ricord considers it advantageous to pass the solid nitrate of silver over the whole affected surface of the urethra. Chronic urethral discharges which have continued for a long period lose their local character, and become constitutional diseases. I have succeeded frequently in curing them by the mercurial vapour bath and general remedies, when all specific treatments had failed.

CHAPTER VI.

OF DISEASES WHICH COMPLICATE OR SUCCEED TO GONORRHŒA IN THE MALE.

117. The diseases which complicate, and succeed to gonorrhœa in the male, are exceedingly varied and numerous, and very frequently of much more consequence than the original affection, to which, however, they are in most instances strictly due. The following are those which I have most commonly observed and treated.

Alteration in the natural elasticity of the urethra.

118. Occasionally, when a patient has suffered from gonorrhœa, and when the more prominent features of the disease have altogether subsided, the patient, after micturition, finds that he has not completely emptied the urethra, although he fancied that he had done so; the water comes away in drops, or in a stream, for some minutes or even longer, wetting the linen, and rendering him extremely uncomfortable. This I attribute to an alteration in the natural elasticity of the urethra, for on examination no stricture is to be found. The proper remedy is the bougie; one of large size should be introduced three times a week, and suffered to remain in the urethra for an hour, if no irritation be produced.

Stricture.

119. Strictures in the urethra are almost always the consequence of protracted gonorrhœal inflammation, seated in one or more points of the urethra, which, ultimately extending to the subjacent tissues, occasions thickening, induration, or vegetation. These are the diseases which, in the expression of Desruelles, an imprudent youth bequeaths to adult age, and

which, in certain instances, at more advanced periods, render the patient's life miserable. In the advanced stages of chronic gonorrhœa, recourse should be always had to the bougie, which should occasionally be passed, with a view of preventing constriction or thickening of the passage, and promoting the absorption of any submucous deposit, or effusion, that may have taken place.

Abscesses in the vicinity of the anus.

120. When a gonorrhœa is seated in the deeper parts of the urethra, in the membranous or prostatic portions, the rectum is sometimes sympathetically affected, and the patient very often suffers from severe pain in the fundament, and a very troublesome tenesmus. This sympathetic irritation is carried in some cases so far, particularly if the patient have used much exercise during the course of his disease, that inflammation is set up in the subcutaneous cellular tissue surrounding the anus, and abscesses form. If circumscribed swelling, with heat and tenderness in the vicinity of the anus, come on during the course of gonorrhœa, the parts should be freely leeched, and the patient subjected to the recumbent position, and perfect quietude. Supposing these means have little or no influence over the circumscribed induration, and the presence of matter be suspected, this should at once be discharged by a very free incision; if a puncture instead of an incision be made, the matter in all probability will not get free vent, may burrow up by the side of the rectum, and a true "fistula in ano" may ultimately ensue. I have seen two or three instances in which such a result has taken place.

Gonorrhœal rheumatism.

121. Although gonorrhœa is not followed (except in rare instances, and even these are matters of doubt,) by secondary symptoms, properly so called, it appears to dispose the economy, either from sympathy, metastasis, or other causes, to several diseases of a very important nature. One of these diseases is gonorrhœal rheumatism, which makes its appearance under two forms; the first seated in the joints, and resembling very much synovitis from other causes; the second confined more to the muscles and aponeuroses, and affecting the fleshy parts, such as the shoulders or hips. In some instances these

diseases are owing to a sudden suppression of the gonorrhœal discharge, whilst in others they bear a strict relation to the condition of the local disease, the rheumatic symptoms yielding as the discharge lessens, and returning with increased force, when, from any circumstances, the gonorrhœa becomes worse. When these forms of rheumatism complicate gonorrhœa, or appear to be produced by it, the gonorrhœa itself is generally very troublesome to cure. The treatment will depend altogether upon the form under which the rheumatism is manifested. If synovitis be present, it may be necessary to leech the affected joints, whilst the patient takes, in combination with the ordinary specific remedies, colchicum, camphor, or opium.[1] If the disease be owing to a sudden suppression of the discharge, it has been recommended to bring it back by introducing a bougie, smeared with gonorrhœal matter, into the urethra. The warm, but more particularly the vapour-bath, is an important adjunct to any internal treatment that may be adopted.

Gonorrhœal diseases of the eye.

Gonorrhœal ophthalmia.

Its three forms.

122. Pure gonorrhœal ophthalmia makes its appearance under three forms: 1st, It may arise from the direct application of gonorrhœal matter to the eye; 2dly, From metastasis; and, 3dly, It has been supposed to be due to sympathetic irritation merely, without either the direct application of gonorrhœal matter, or from metastasis. Some writers have denied that the direct application of gonorrhœal matter to the eye of the same individual has power to produce the first form of the disease, and this was the opinion of Dr. Vetch. Numerous cases, however, establishing the fact that gonorrhœal matter produces the most destructive form of inflammation of the eye, have fallen under my own notice, and under that of all modern surgeons who have written on the disease. In the second form of the disease the eye is supposed to suffer from metastasis;

[1] R. Ext. colchici acetic. gr. j ad gr. iij.
Camphoræ, gr. iij.
Pulv. opii, gr. ss.
Ft. pil. ter die sumenda.

analogous to those successive attacks of different parts which are observed in gout or rheumatism.[1] That this form of ophthalmia is not caused, like the preceding, by the direct contact of matter from without, is demonstrated by the fact that it has been observed to occur more than once in the same individual, although every means had been most carefully employed to protect the eyes from contamination.[2]

Treatment of gonorrhœal inflammation of the eye.

123. Mr. Lawrence thinks "as much blood should be taken from the arm as will flow from the vein, and that the evacuation should be repeated as soon as the state of the circulation will allow us to get more." (p. 36.) Blood must also be taken from the temples by cupping, and by the free application of leeches round the part, until the pain and vascular congestion is relieved. Mr. Wardrop goes so far as to say that the only case of gonorrhœal ophthalmia he had seen, in which the eye was saved, was that of a young woman, in whom venesection was repeated as often as blood could be got from the arm. Bleeding alone, however, must not be depended on, but at the very commencement of the disease local applications of an astringent character, hereafter to be mentioned, must be combined with it. Notwithstanding these authorities, "it is stated that the gonorrhœal discharge is suppressed, and that the inflammation of the eye occurs in consequence of that suppression." This view is supported by Richter, Scarpa, and Beer, and they consider the restoration of the discharge from the urethra as a principal indication in the treatment. I have never seen a well-marked case of this kind, though there are many on record. I have seen the most acute ophthalmia associated with profuse discharge from the urethra, and this was very marked in a case I attended with my friend Dr. Melson. Swediaur has collected a few cases, in which the return of discharge from the urethra cured an ophthalmia which had arisen from its sudden suppression, and which had

[1] Lawrence on the Venereal Diseases of the Eye, p. 34.

[2] Wallace, op. cit.

resisted the usual modes of treatment. The third form of gonorrhœal inflammation of the eye is that which occurs during the continuance of a clap, without the direct application of the matter, or without the suppression of the discharge. "Since, then, gonorrhœal ophthalmia may occur whilst the discharge from the urethra continues, and since it does not take place when that discharge is stopped, we cannot admit that the affection of the eye owes its origin to the cessation of disease in the urethra."

124. We are disposed to think that bleeding has been too exclusively relied upon in this disease, which is, in its commencement, purely local; and Mr. Lawrence himself is dissatisfied with the results of the cases treated exclusively on this plan, although he attributes its want of success to its not having been employed to a sufficient extent. However, he mentions a case (Case 5,) in which blood was taken very largely, both locally and generally, and other powerful antiphlogistic means were resorted to, yet the eye was lost. Mackenzie says, "bleeding alone must not be depended on;" and O'Halloran is of opinion that if an inquiry were instituted amongst army surgeons, it would be found that those who had used the greatest depletion were the least successful practitioners.

Local remedies in gonorrhœal ophthalmia.

125. Directly after the system has been depressed by loss of blood, we must have recourse to local, astringent, or specific remedies. Amongst these may be mentioned, as entitled to most confidence, the solution, or pomade of nitrate of silver. The former may be employed in the proportion of ten grains to the ounce of water, dropped into the eye at the very commencement of the disease. O'Halloran "had become dissatisfied with the antiphlogistic treatment, from having found it frequently insufficient. I was hence led to use astringents, not only in the early stage of the disease, but when the purulent discharge and chemosis were fully established. He employed the sulphate of copper in substance, rubbing with it the inner surface of the eyelids after everting them, or he dropped

into the eye the ten-grain solution of the nitrate of silver." [1] Mr. Lawrence mentions two cases where this treatment was successful. Most modern authors are agreed upon this plan of treatment, and use as astringents a solution of the nitrate of silver, of the sulphate of copper, or a pomade of the first-named salt. I have seen one case in which a solution of the sulphate of copper was completely successful, when the nitrate of silver in the same form appeared to do little good. In the intervals of the dressings the eye is to be covered with a compress soaked in the Liquor aluminis compositus diluted. The extract of belladonna may be rubbed over the temples, and round the orbit, during the treatment, with a view of preventing any adhesions of the iris, which commonly becomes affected, as well as the other deeper seated structures of the eye. If the chemosis be great, Ricord recommends a portion of it to be removed with a pair of scissors, a practice of which Dr. Mackenzie speaks also in very high terms.

Specific anti-gonorrhœal remedies useless.

126. It is perfectly useless, not to say criminal, in such cases, to waste the time, so precious to our patient, in administering the remedies looked upon as specific in gonorrhœa, such as copaiba and cubebs, recommended by Dr. Wallace. "The anti-gonorrhœal remedies, properly so called, have absolutely no action upon the disease, whatever be their mode of administration." The testimony of modern experience is against the use of mercury in the acute forms of this disease; we lose time, and compromise the vision of the patient, by relying upon it in this stage; in the chronic forms it may be employed with a reasonable prospect of success.

Mercury of little use.

Restoration of the urethral discharge.

127. Those authors who support the view of gonorrhœal ophthalmia being produced by metastasis, place great stress upon the restoration of the urethral discharge; it is also recommended in cases where this ceases during an attack of disease of this character. Swediaur, Richter, Beer, and Scarpa recommend the introduction of a bougie smeared with the discharge from the eye, or with gonorrhœal matter taken from

[1] Lawrence, p. 44.

another patient. In spite of the authorities of these names, I think their advice rather the result of preconceived theoretical notions than the deductions from the results of treatment. Mr. Lawrence supports the latter opinion, and the modern writers of greatest experience agree with him. "If," says Ricord, "the discharge from the urethra is for a short time diminished during an attack of gonorrhœal ophthalmia, it is never completely suppressed, and we can affirm, in spite of contrary opinions, that not the least benefit is to be expected from attempting to increase or restore it." (p. 763.) Swediaur appears to have been successful in some chronic cases of this character by the restoration of the urethral discharge; but I cannot find in any late writer, neither have I ever seen a case supporting the efficacy of this treatment.

Gonorrhœal iritis.

128. Many modern surgeons admit a true gonorrhœal inflammation of the iris. This generally occurs in scrofulous patients labouring under gonorrhœa or gleet. Sometimes it succeeds to gonorrhœal inflammation of the conjunctiva or the sclerotic, or occurs with that peculiar species of rheumatism which sometimes accompanies a gonorrhœa. It very commonly alternates with affections of the joints, and an acute attack of synovitis frequently cures or very much relieves the inflammation of the eyes. The frequency with which this species of disease succeeds to mild gonorrhœal ophthalmia, and the facility with which adhesions of the iris take place renders it necessary that in the various forms of gonorrhœal ophthalmia we should adopt the plan of keeping the pupil dilated by the external application of belladonna. "This affection of the eye is exactly the same as rheumatic inflammation of the sclerotic and iris occurring independently of gonorrhœa. Both this and the mild purulent inflammation of the conjunctiva are to be regarded as rheumatic affections of the organ excited by gonorrhœa, that is, they take place in individuals in whom this constitutional disposition is shown by inflammation affecting either the synovial membranes or the fibrous structures of several joints."[1] Dr. Vetch has given cases of this disease.

[1] Lawrence, p. 57.

In one instance the gonorrhœa was well marked and violent, and was succeeded by a swelled testicle; rheumatic inflammation of the joints and of the external proper tunic of the eye followed. They terminated in an irregular and contracted pupil, some opacity of the capsule of the lens, adhesions between it and the iris, and a considerable loss of vision. Generally, however, the prognosis is favorable, and the disease very much more under the control of art than the more acute forms of purulent ophthalmia. "The gonorrhœal is generally more rapid in its progress than any of the other varieties of iritis, and is one of the most severe and formidable whilst it lasts; but it yields more promptly to decided treatment than any of the rest, and affords examples of perfect recovery even when the aqueous chambers are filled with lymph."[1]

Treatment of gonorrhœal iritis

129. The treatment must consist, in the onset, of general and local bleeding, suited to the urgency of the symptoms; calomel and opium, so as rapidly to affect the system, and the application of the extract of belladonna. Our chief reliance is to be placed upon mercury united with opium and antimony; and if there exist a rheumatic state of the system, colchicum and turpentine will be useful. Sir B. Brodie places great reliance on colchicum. As local applications, warm decoctions of poppy are generally agreeable to the patient's feelings on account of the great pain that sometimes attends the disease. "When the inflammation is checked, blisters may be advantageously employed, and the cure may be completed by Plummer's pill, with mild aperients and regulated diet."

Inflammation of the epididymis

130. The most frequent of all the diseases of the testicle which accompanies or succeeds to gonorrhœa, is inflammation of the epididymis, epididymitis. This occurs so constantly and regularly as a consequence of gonorrhœa, that M. Ricord applies to it the name of "epididymite blennorrhagique." This disease is commonly described under the terms of orchitis, hernia humoralis, or swelled testicle: the dissections of Ricord and others prove that these names are misapplied, and the

[1] Mackenzie, p. 476.

disease is generally confined to the convolutions of the epididymis.

How and at what period it occurs.

131. This disease hardly ever occurs during the first,[1] or even in the second week of a gonorrhœa, more commonly in the third. Ricord believes the disease may originate in two ways, from sympathy and from the direct propagation of inflammation from the ejaculatory ducts to the vesiculæ seminales, through the vas deferens to the epididymis; his dissections have proved this. Cullerier also believes that it is owing to the direct propagation of disease along the seminal passages, and not to metastasis. The longer the continuance of a gonorrhœa, the more likely is it to be thus complicated; the best way to prevent it is to cure the disease as quickly as possible. Amongst other causes are exercise, constipation, the neglect of the suspender, free living, and the use of stimuli during the course of a gonorrhœa. Amongst the predisposing causes of this affection may be enumerated fatigue, violent exercise, repeated sexual intercourse, and any circumstance producing excitement of the organs of generation. Various occupations predispose to it, as those of weavers, turners, grooms, and all trades where the testes are exposed to frequent friction. "A flaccid state of the scrotum is also to be ranked amongst the predisposing causes: a strong cremaster and firm scrotum are rarely met with in individuals suffering from swelled testicle."

Causes.

Not caused by injection, or suppression of discharge.

132. A swelled testicle is not caused, in ordinary cases, by the use of injections, or the quick suppression of the discharge, but by the extension of the inflammation in the manner already named. The tables of M. Gaussail show that the swelled testicle is much more frequent in the fourth and fifth weeks of the disease; hence the quicker the primary affection is cured, the less chance there is of consecutive inflammation of the epididymis and affections of the testicles.

Differential diagnosis.

133. It is not improbable that in certain positions of the testes, and where an irreducible scrotal hernia is present, a

[1] Not once in three hundred times. (Ricord.)

swelled testicle may be mistaken for a strangulated hernia. I attended a gentleman for gonorrhœa who had an irreducible scrotal hernia of the right side. In the third week of the disease, after a long walk, he became affected with swelled testicle on the ruptured side; this was accompanied by constipation, vomiting, tenderness of the abdomen, and other symptoms common to strangulation of the bowel; for two days the case had a very formidable aspect. Mr. Acton[1] has recorded a curious and instructive case bearing upon this subject. "A young man, twenty-four years of age, was in the habit of amusing himself, when a boy, by pushing his testicles into the abdomen. Two months previous to his admission into the hospital he contracted a gonorrhœa which discharged profusely; he continued, notwithstanding, his employment. In about a fortnight after, he felt a painful sensation in the left groin; and this becoming worse, he entered the hospital a month after the commencement of his complaint, suffering under great pain in the inguinal region, which was greatly inflamed, whilst pressure on that part produced that peculiar feeling, but in a greater degree, which is excited when the testicle itself is compressed. On examining this patient, no testis was found on the left side of the scrotum, but, on passing the finger into the left inguinal canal, a rounded body was distinctly felt, resembling the testis in shape, and the patient stated that he experienced a similar pain to that felt when the testicle on the opposite side was squeezed."

Case.

Case.

This case was recognized as one of ordinary swelled testicle, notwithstanding the unnatural position of the organ. It is not improbable that such a case might be mistaken for a strangulated inguinal hernia, more particularly when such symptoms as vomiting, constipation, and tenderness of the abdomen are present. The history of the concomitant affection, and the absence of the testes in the scrotum, are the chief points which could decide the surgeon. Should such a case coexist with a strangulated hernia, it would form a curious and puz-

[1] On Venereal Diseases, p. 95.

zling complication, and one which would render the operation extremely embarrassing.

134. If gonorrhœal epididymitis occur with any degree of intensity, the disease soon involves the neighbouring tissues of the testicle; and hence we observe speedily succeeding to it, or complicating it, diseases of the tunica vaginalis, or testicle itself, and very commonly inflammatory hydrocele, œdema, erysipelas, or phlegmon of the scrotum.

135. This disease is prevented by the antiphlogistic treatment of gonorrhœa, the use of the suspender, and the early employment of specific anti-gonorrhœal remedies, as copaiba, cubebs, &c. When once set up we must employ general bleeding, if circumstances require it, or local bleeding from the region of the spermatic chord, or perineum; the patient must keep the testicle suspended, and remain in the horizontal position. To relieve the pain, which is sometimes very acute, frictions upon the testicle with oil, opium, or belladonna, &c., may be employed.[1] When the acute symptoms have in some measure subsided, the most efficacious practice is compression of the testicle, strapping it with plaster of mercury, and ammoniacum.[2] This practice generally succeeds in curing most

[1] ℞. Olei camphorati, ℥j.
Tinct. opii, ʒj. M. ft. liniment.

or,

℞. Adipis, ℥j.
Ext. opii, ʒij. M.

or

℞. Adipis.
Ext. Belladonnæ, āā ℥j. M.

[2] The emplastrum "de Vigo," is generally employed for this purpose in the French Venereal Hospitals; it resembles much, though is in some points superior to, the Emp. ammoniaci cum hydrargyro of the London Pharmacopœia. The form is as follows:

℞. Hydrargyri, 95 parts.
Styracis liquidæ, 48 parts.

forms of epididymitis in five or six days, and has the advantage of not confining the patient. I have repeatedly employed it from the very commencement of the disease with the most complete success.

136. The Emplastrum ammoniaci c. hyd., or the Emp. "de Vigo" are to be cut into thin straps, and applied in a circular manner round the testicle, drawing this organ, as far as can be done without pain, to the bottom of the scrotum, and taking care not to pucker the skin in applying the plaster. The first strap is placed circularly round the testicle at the insertion of the cord, compressing the organ as much as the patient can bear; a succession of straps are then applied till the organ is covered: and a second series of straps then placed over the circular ones from below upwards, and over these again a few more circular ones to keep the whole in place. If the pressure of the plaster occasions pain or irritation, the straps are to be removed till the inflammation or sensibility is more diminished; in many instances the patients experience relief directly the testicle is supported by the plaster.

137. During the local treatment of the disease, the patient is to persevere in the use of specific anti-gonorrhœal remedies; the copaiba and cubebs; and a mild mercurial course may be

These are to be rubbed together till the globules of mercury disappear; then melt together, in a separate metal pot,—

Emp. plumbi,	312	parts.
Ceræ flavæ,	16	„
Terebinthinæ puræ,	16	„
Picis Burgund.,	16	„
Gum. ammoniaci,	10	„
Olibani,	5	„
Myrrhæ,	5	„
Croci in pulv.	3	„

These ingredients are to be well mixed, first amongst themselves, and then with the mercury and styrax. The plaster thus made is to be spread upon linen, calico, or thin leather, and then cut into strips of convenient thickness.

recommended, to remove any thickening or enlargement which remains after the more acute symptoms of epididymitis and its complications have subsided.[1]

Chronic enlargement of the testis.

138. A chronic enlargement of the testis, sometimes occurring alone, and sometimes complicated with hydrocele, occasionally remains after the subsidence of the more acute symptoms accompanying a swelled testicle. For this affection compression is of little use. I believe the proper remedy to be the hydriodate of potass, with alterative doses of mercury, and the external application of the tincture of iodine. Mercury pushed to salivation is occasionally of great service in these consecutive diseases of the testicle and its envelopes.

General weakness and irritability of the genital and urinary systems.

139. In some constitutions gonorrhœa leaves behind it a general weakness and irritability of the organs of generation, and an alteration in the character of these secretions. The semen is scanty and devoid of its characteristic smell; it is thin and watery, and ejected languidly during coition; very quickly, and without sensation. When the bowels are evacuated, there is occasionally forced from the urethra a thin substance like gum, which has a soapy feeling when rubbed between the fingers. This is no doubt a vitiated hyper-secretion which hangs about the relaxed mucous membrane of the urethra, the lacunæ, and the ejaculatory ducts, and which is forced from the urethra by the action of defecation. At the same time the penis and scrotum are flaccid, and the reflex actions of the erector and ejaculatory muscles are with difficulty excited. With these symptoms there commonly exists weakness and trembling of the legs, and a general lassitude of the whole system.

The balsams and turpentines, with the preparations of steel, kino, catechu, and cantharides, are very useful in such states

[1] Ricord employs the following form of pill in these cases:

℞. Hydrarg. chlorid. ℈j.
Pulv. v. Ext. conii, ℈ij.
Sapo. dur. ℈ij. M. ft. pil. xxiv.

as general remedies. Tonic and stimulating injections should also be practised with a syringe perforated on the sides so as to inject the lacunæ of the urethra, which are commonly the principal seats of disease. Friction of the loins, scrotum, thighs, and penis with warm spirituous embrocations, should be practised at the same time.

CHAPTER VII.

OF GONORRHŒA IN THE FEMALE.

Nature. 140. GONORRHŒA in the female is for the most part a disease of very different character to that in the male; the anatomical structure and functions of the organs implicated modifying the affection both in its seat, its course, its treatment, and its terminations.

Seat. 141. This disease recognizes for its pathology acute or chronic inflammation of the vulva, vagina, uterus, or urethra; the inflammation itself being of a specific character, the result of impure cohabitation, and capable of producing gonorrhœa in the male. In the female, gonorrhœa is not confined to the urethra; it is commonly seated in the vagina, in the mucous membrane reflected over the neck and mouth of the uterus, or in the lacunæ surrounding the meatus urinarius, so minutely described by Dr. Graaf, who considered them the true seat of the disease.

142. M. Gibert, whose experience and learning always command our attention and respect, gives the following view of discharges in the female:

1st. Urethral gonorrhœa, the type and model of gonorrhœa or blennorrhagia properly so called; eminently contagious.

2d. Vaginal discharges, termed gonorrhœal or blennorrhagic, much more common than the preceding, particularly in females of loose character, the precise nature of which it is often very difficult to determine; nevertheless the vagina may be the seat of a pure specific gonorrhœa, either alone or complicated with urethral gonorrhœa.

3d. Uterine gonorrhœa or blennorrhagia, capable of producing a similar disease in the male. These discharges should only be regarded as *specific* when they are associated with ulceration of the os uteri. The uterine discharge continues long after the other forms have been cured, and is contagious, although it resembles mere leucorrhœa.

These ulcers must not, except in rare cases, be regarded as syphilitic; they are in most instances the result of ordinary inflammation. Dr. Henry Bennet, who has favoured us with by far the most practical and philosophical monograph extant on "Ulcerations of the Os Uteri,"[1] thus explains the nature of the ulcerations which, in most instances, complicate the various forms of gonorrhœa or blennorrhagia: "They are nearly all, in my opinion, inflammatory. In vaginitis, be it simple or virulent, the inflammation soon extends to the cervix uteri, where, owing to the great vitality of the organ, to the number of its mucous follicles, and to its exposed situation, the inflammation easily passes on to ulceration." "Ulcerations presenting the characters of the inflammatory ulceration are excessively common on patients labouring under blennorrhagia," &c.

4th. The fourth form of discharge to which M. Gibert alludes is that of the external parts, which he compares with balanitis in the male. The diseases are, however, in many points essentially different.

143. In the more acute forms of the disease, a strictly antiphlogistic treatment and regimen must be adopted: general or local bleeding, aperients, the warm bath, emollient fomentations and poultices, and injections or rather continual irrigations of the parts, by means of a self-acting syringe, with sedative, demulcent, or slightly astringent fluids. When local bleeding is thought necessary, the leeches should be applied on the inside of the thighs or in the folds of the groin; these situations are preferable to the perineum or the labia. As it must be uncertain whether the discharge is complicated with Treatment.

[1] A Practical History of Inflammation, Ulceration, and Induration of the Neck of the Uterus. London, 1845; Churchill.

ulcers, it is always well to keep the leech-bites free from the contact of the discharge, to avoid the possibility of inoculation, and thus the probable occurrence of venereal sores.

Use of the speculum.

144. In the earlier and more acute stages of the disease, it is not prudent, and sometimes not always safe, to have recourse to the speculum to ascertain whether the gonorrhœa is complicated with venereal ulcerations or not; our first duty is to subdue the acute inflammatory symptoms, and then if the chronic stage be protracted, or do not yield to treatment, and there is reason to suspect the existence of deep-seated ulcers, the speculum may with propriety be used to clear up our diagnosis.

145. Adopting the idea of Fricke, many surgeons believe that gonorrhœa in the female, as well as in the male, is protracted by the contact of the two sides of the urethra or vagina, &c.; and hence, in the case of the female, M. Ricord recommends the introduction of a soft plug of charpie, or lint, which may be changed twice a day, and, during the intervals, kept constantly moist with injections of any kind, suited to the nature of the case, thrown over it with a syringe; the plug may likewise be dipped in these injections before it is introduced. This remedy has the double advantage of separating the two sides of the vagina, and thus preventing the irritation their contact occasions, and of applying a direct topical medication to the parts affected—a circumstance of vast importance where internal or general treatment is of comparatively little value.

The plug.

Internal treatment.

146. The internal treatment of gonorrhœa in the female is very limited. The remedies which are considered specific in this disease in the male, as copaiba, cubebs, &c., are here almost inert. Their action upon the vaginal forms of the disease is very feeble, a little more energetic over the urethral varieties. Aperients, with diluent and demulcent drinks, constitute nearly the whole of our resources, under the head of internal treatment. Mercury appears useless in the uncomplicated forms of the disease, except with a view of removing any chronic enlargement or thickening which may be the result

of long-continued chronic inflammation. The treatment is then to be the same as that we recommended, when speaking of the use of mercury in gonorrhœa in the male.

147. The local treatment of acute vaginitis or urethritis in the female consists in the topical abstraction of blood, if necessary; and during the more severe stages the use of emollient and narcotic fomentations and injections, with or without the use of the plug. This treatment, however, should not be long continued, if ineffectual; for we frequently find rest, local bleeding, emollient and narcotic applications of little use, the patient still continuing to suffer from severe pain, and an abundant puriform discharge, whilst the mucous surfaces of the vagina, &c., continue red, and turgid with blood. The nitrate of silver may now be employed with the best effects, either by passing the solid nitrate over the diseased surface, or in form of injection,[1] keeping the vagina plugged with a dry soft piece of lint in the intervals of the injections. When the acute stage has in some measure given way, we may have early recourse to astringent injections, with a view of preventing the discharge assuming the chronic form, and thus continuing for an indefinite period. The preparations of lead[2] or alum[3] may be employed for this purpose. Local treatment.

148. When the more acute stages of disease are passed, and the chronic form continues but little influenced by remedies, it will be well to examine the mucous surfaces of the vagina, &c., by means of the speculum. These may be found in several pathologic conditions; simply red, turgid, and hypertrophied, or covered with red isolated patches, aphthæ, vesicles, pustules, or superficial ulcerations. After the continuance of the disease for some time, the os uteri is always more or less affected; its lips are turgid, red, and everted, and generally Treatment of chronic forms.

[1] ℞. Argent. nit. gr. x.
Aquæ, ℥j. M. ft. injectio.

[2] ℞. Aquæ, Oij.
Plumbi acet. ʒiij ad ℥ij. M. ft. injectio.

[3] ℞. Aquæ, Oij.
Aluminis sulph. ʒiij ad ℥ij. M. ft. injectio.

covered with small ulcerations, granulations, or other changes, the result of chronic inflammation.

149. In the chronic forms of the disease, unattended by change of structure, as local applications or injections we may employ solutions of tannin,[1] kino,[2] the infusion of roses with bark,[3] alum or myrrh and catechu,[4] &c. &c. The solutions of the chlorides of soda or lime are chiefly of use when the discharges are offensive and accompanied by ulceration.[5] When the gonorrhœal discharge is secreted by the mucous surfaces of the vagina, these applications may be thrown up with an ordinary female syringe; when, however, the os uteri or its neighbourhood is the seat of the disease, it becomes absolutely necessary to use the plug of lint, or a piece of sponge, to keep the remedies in contact with the affected surfaces to which they are wished to be applied.

Complications.

150. When the chronic state of gonorrhœa in the female is accompanied by any alterations of tissue, these changes demand our first attention, since it is useless to attempt to check the discharge as long as these conditions remain upon which it depends. Ulcerations or papulous granulations should be cauterized with the nitrate of silver, or, what is better, with

[1] R. Tannin, ℈ij ad ʒj.
Vini rubri, ʒvj. M.

[2] R. Gum. kino, ʒj ad ʒij.
Aluminis sulph. ℈j ad ʒss.
Aquæ ferventis, Oij. M. (Swediaur.)

[3] R. Infus. rosæ comp. Oij.
Pulv. cinchonæ, ʒij. M. (Hôtel Dieu.)

[4] R. Pulv. catechu.
P. myrrhæ, āā ʒj.
Liquor. calcis, ʒiv. M.

[5] R. Solut. sodæ, chlorid. pt. 1.
Aquæ, pts. 12 ad 16. M.
(Hôpital des Vénériennes.)

the acid nitrate of mercury.[1] This caustic is to be applied by means of a camel-hair pencil, or a small roll of lint, to touch the diseased surfaces, these having been previously cleansed by dry lint or a soft sponge. When ulcerations themselves have destroyed the tissues more or less deeply, caustics must be employed with extreme caution. In these cases M. Ricord covers the surface of the ulcers with calomel, upon which he places some dry soft lint, and afterwards passes into the vagina some lint soaked in one of the astringent or tonic injections previously mentioned. Where the disease has extended more or less into the uterus, and has assumed a form of disease termed uterine gonorrhœa or catarrh, injections of the nitrate of silver, in the proportion of six grains of the salt to the ounce of water are preferable.[2]

Differential diagnosis.

151. A true vaginal gonorrhœa may be confounded with acute or chronic vaginitis arising from other causes; and hence arises a question of great delicacy and importance, whether we are in possession of any facts which will enable us to establish a correct differential diagnosis between vaginitis as the result of impure sexual intercourse and those forms of disease which are the result of other causes? "The diagnosis of leu-

[1] To four parts of mercury, add, in a retort, eight parts of nitric acid; when the solution has taken place, reduce to nine parts by evaporation. This, the acid nitrate of mercury, is a solution of deutonitrate of mercury in an excess of acid, and contains 71 per cent. of the deutonitrate. This agent is a powerful caustic, giving rise to a white eschar, which does not fall off for five or six days. (Dr. H. Bennet, Op. cit.)

The above solution may be applied also as an injection, diluted to suit the feelings of the patient and the character of the disease. M. Ricord has employed it diluted with twelve parts of water as an injection in uterine gonorrhœa, &c.; its use sometimes occasions pains and violent hysterical symptoms attended with stupor. Owing to these circumstances, M. R. generally prefers a solution of the nitrate of silver of the strength above indicated.

[2] For a full account of the best modes of applying escharotics and injections to parts deeply seated, to the upper part of the vagina, or os uteri, see the admirable directions given by Dr. Bennet in his work already quoted.

corrhœa," says Dr. Churchill,[1] "is, according to all authorities, extremely difficult." Sir C. M. Clarke seems to think it impossible.

152. In gonorrhœa the discharge is generally more frequent and the inflammation more acute than in leucorrhœa. In the former disease the glands of the groin are more frequently enlarged, tender, and painful, and in gonorrhœa the affection extends to the urethra in about two thirds of the cases.[2]

Difficulties in treatment arising from various causes.

153. Many causes contribute to render the treatment of gonorrhœa in the female tedious and unsatisfactory, and a disease more difficult to cure in this sex than in the male. The recurrence of the menstrual period is constantly interfering with the success of treatment; and a gonorrhœa that has been almost subdued in the interval, is renewed with all its intensity at the time of menstruation. When gonorrhœa is complicated with amenorrhœa or leucorrhœa, the case is always rendered obstinate and embarrassing.

[1] Outlines of the Principal Diseases of Females, &c. Dublin, 1838; pp. 23-4.

[2] See the paper of M. Ricord, Mémoires de l'Académie Royale de Médecine, 1833.

CHAPTER VIII.

OF THE SECOND CLASS OF PRIMARY SYPHILITIC DISEASES—ULCERS, THEIR VARIETIES AND CONSEQUENCES.

154. THERE are three forms under which the primary venereal sore more commonly makes its appearance: in form of a minute pustule or vesicle; as a simple ulcer or chancre; and as an ulcer succeeding to phlegmonous inflammation, which has been seated in a follicle, the cellular tissue or lymphatic gland, vessel, or ganglion. It is also important here to remark that the primary syphilitic ulcer has two marked and distinct stages: one of ulceration, the second of reparation or granulation, each demanding a separate and distinct treatment both locally and constitutionally. Forms of the primary venereal ulcer.

155. All primary venereal ulcers do not present the same aspect or character, and in this respect differ very materially from each other. They resolve themselves naturally into a few principal forms. These are, 1st, The simple primary ulcer, characterized by negative rather than positive characters—i. e. by the absence of induration, irritability, or inflammation; 2d, the irritable; 3d, those characterized by an excess of inflammation; 4th, the indurated,—the induration being a primary feature of the sore, and not being produced by the injudicious use of local stimulating dressings, by which any primary sore may be made to assume the indurated character; 5th, those spreading by rapid ulceration, or covered Classification of primary venereal ulcers.

by sloughs of varied colour and appearance; these varieties being the ulcerative and sloughing phagedæna of authors.

Treatment of the first stage.

156. The venereal pustule, if presented to us sufficiently early, and conveniently situated, should be removed by the knife or scissors, or should the fears of the patient prevent this, it is to be opened with the point of a lancet, and the whole internal surface well cauterized with a crayon of the nitrate of silver, and afterwards treated in the manner we shall direct for the management of the primary venereal ulcer.

157. When we are called upon to treat the simple primary venereal sore during its first stage, or that of ulceration, our first object is to destroy the diseased surface and reduce it to the condition of a simple sore. This is to be accomplished by means of an appropriate escharotic, with which the whole surface of the sore is to be well cauterized, taking care to avoid any parts of the sore, if such there be, where the process of granulation has already commenced.

Wallace's treatment.

158. "It is," says Dr. Wallace,[1] "during the ulcerating stage of primary syphilis, or when the process of granulation has only partially commenced, that our assistance is for the most part sought; and when the disease is in this stage there is no doubt on my mind of the propriety or practical utility of immediately applying the nitrate of silver in such a manner as to destroy the diseased surface. I have treated, over and over again, primary syphilitic ulcers with this caustic, and without it, under circumstances as nearly similar as possible in every respect, and the result has uniformly demonstrated the very great advantages of the former over the latter mode of proceeding. The nitrate of silver should be pointed before using, and then rubbed carefully on every part of the ulcerating surface (previously cleared by poultices or emollient fomentations of all incrustations), until the edge of the ulcer be rendered black, and the surface of a deep ash colour. But should any of the ulcerated surface have entered on the stage

[1] Op. cit. pp. 92, 93.

of granulation, that portion is to be avoided, and the application of the caustic confined, as much as possible, to such parts of the sore as are still in the stage of ulceration."

159. Whilst the chancre continues in the state of ulceration, the application of the nitrate of silver must be repeated, waiting for the separation of the eschar produced by the caustic, to ascertain clearly the condition of the sore before we reapply the caustic. After the application of the nitrate of silver, the ulcer should be covered with a piece of fine soft lint, spread with some simple ointment,[1] over which may be placed a bread-poultice, or fine linen moistened in the liquor plumbi diacetatis dilutus, and the whole covered with a piece of oiled silk or isinglass plaster. Dressings after the application of the caustic.

160. The local dressings to chancres, employed by M. Ricord at this period, deserve particular notice. They consist in the application of aromatic wine,[2] medicated either with tannin,[3] with opium,[4] or with both. Local applications.

[1] One of the best applications as an ointment at this period is the opiate cerate of the French Codex.

℞. Adipis, ℔ j.
Vini opii, ℥j. M.

A strong aqueous solution of opium may be used where ointments are objected to, more particularly if the patient suffer much pain. Ricord employs the following form:

℞. Decoct. papaveris, v. conii. ℥viij.
Ext. opii purificati, gr. viij. M.

[2] The aromatic wine of the French Codex, employed by M. Ricord in the treatment of chancres, is composed of four ounces of aromatic herbs, (rosemary, rue, sage, hyssop, lavender, absinthium, origanum, thyme, laurel leaves, the flower of the red rose, chamomile, mellilotum, and elder,) digested in two pints of red wine for eight days.

[3] ℞. Vini aromatici, ℥viij.
Tannin, ℈ij. M.

[4] ℞. Vini aromatici, ℥viij.
Tannin, ℈ij.
Ext. opii pur. ℥ss. M.

These three preparations are extensively employed by M. Ricord in the

161. The sores are to be carefully washed with one or other of these preparations, and afterwards covered with soft lint, moistened in them. Care must be taken, in renewing the dressings, to soften the lint well before it is removed, so that no part of the surface or surrounding skin may be torn away with the lint.

162. These preparations possess the advantages of modifying the surface of the sore, of promoting its rapid cicatrization, of diminishing the secretion of pus from its surface, and, by their astringent properties acting upon the surrounding tissues, of preventing the extension of the disease, or the formation of fresh chancres, a circumstance so common in all other modes of dressing. The use of the aromatic wine with or without tannin is contra-indicated when the surface of the sore is dry, furnishing no secretion and remaining indolent, or again where the edges being indurated these dressings seem to increase the induration. In all other circumstances these are the local applications most commonly employed by Ricord.

Constitutional treatment.

163. The state of the economy at large demands much attention on the first appearance of a venereal ulcer; and we must here bear in mind the golden rule, that the varied appearances of primary venereal sores, and the characters they afterwards assume, depend very much, if not altogether, upon the natural constitution of the patient, and upon the particular condition of his health at the time he imbibes the venereal poison. Thus, in many instances, a primary venereal sore upon the penis produces the most intense local inflammation and fever. Under these circumstances the patient must be

local treatment of primary venereal sores on the genitals and elsewhere. During the first few days he is satisfied with this local treatment; the application of the nitrate of silver, and a general antiphlogistic treatment if necessary. Should no benefit result in five or six days, and the edges of the ulcers become thick or hardened, without any disposition to heal, a modified mercurial course is adopted. I am in the habit of using new port wine, rendered aromatic or not, as the vehicle for the application of tannin or opium.

treated upon general principles: he should be bled generally or locally, and the bowels kept freely open; he should be restricted to the simplest diet, and kept quiet in bed, whilst emollient fomentations or poultices are applied to the sore. The local inflammation and fever are first to be removed, in these cases, before we think of resorting to the nitrate of silver, and should the stage of ulceration be arrested by these means, and the sore assume a disposition to heal, it will not be necessary, or even safe, to use it at all, but the granulating ulcer must be treated in the way we shall presently mention.

164. Cullerier, in the treatment of the primary venereal sore, confines his patients to bed, and keeps them upon low diet; if there be any local inflammation or fever, he bleeds them from the arm, and covers the sore with a poultice, the opiate cerate, or a strong aqueous solution of opium. All local inflammation and accompanying fever are to be subdued before the use of the nitrate of silver; and, during the two or three days which are generally spent in its application, the patient should live low, keep his bed if possible, and take daily aperients, unless specially contra-indicated. This plan has the twofold object of preventing or mitigating the inflammation which may be caused by the application of the caustic, and of preparing the patient for any subsequent general or local treatment the nature of the sore may require.[1]

Medication and diet.

165. During the earlier periods of the local treatment of chancre, a regimen suited to the constitution of the patient should be observed. Under this point of view no exact rules are to be laid down. In some cases a purely antiphlogistic treatment becomes necessary, whilst in others, tonics and a

[1] During those two or three days which are generally spent in the application of the caustic, the patient should be prepared by a purgative, and by regularity in his mode of living, for subsequent constitutional treatment; the lotio plumbi subacetatis may be applied without disturbing the dressing, by immersing the diseased part in it two or three times a day, or by rolling the penis in lint kept wet with this lotion, and covered with oiled silk. (Wallace, op. cit. pp. 97-8.)

nourishing diet are required. The state of the general health requires particular attention, for it must be recollected that, from a bad constitution, or one enfeebled by previously existing disease, result those complications and severe local affections, so frequently observed during the progress of primary venereal sores.

Mild treatment recommended.

166. The more mildly primary ulcers are treated locally, the less likely are they to be followed by those appalling complications which sometimes accompany them, such as rapid ulceration, sloughing, or disorganization of the penis and scrotum, which used to be so common under the old treatment of stimulating mercurial applications during the first days of chancres. I dwell upon this point because I deem it of the first importance, whilst we have the universal testimony of modern writers on Syphilis in its favour. To well understand the principles on which the local as well as the general treatment of primary sores must be conducted, the surgeon must constantly bear in mind the two stages of chancre: in the first we have to do with a specific sore, irritable, poisoned, and poisonous, liable to be irritated by the least stimulus; whilst in the second, we have a simple ulcer destitute of all these characters.

The author's views on the application of escharotics.

167. A chancre, when first presented to the notice of the surgeon, is generally in one of two states, either in that of a small pustule with its contents yet undischarged, or a minute ulcer. In whatever state it may be, our first duty is to endeavour, by the use of escharotics, to convert the specific sore into a simple one. For this purpose most authors recommend either a strong solution of the nitrate of silver, or the application of this caustic in substance.

When the nitrate of silver is used, if the disease be pustular, it will be necessary to open the pustule with the point of a lancet, to discharge its contents, and rub the whole surface and edges of the ulcer thus produced with the nitrate of silver previously cut to a sharp point; if the disease be an open ulcer it is to be treated in the same way. The nitrate of silver thus applied will sometimes have the effect of producing a simple sore, but it will more commonly give rise to consider-

able irritation and inflammation, whilst the specific character of the sore is not destroyed. I have seen so much evil, in this respect, from the use of this escharotic, that I have now abandoned its use under such circumstances, and have recourse to other caustics of a more powerful character.

Those recommended.

168. The great evil in the use of the nitrate of silver in these cases is, that it is powerful enough to irritate but not sufficiently powerful to destroy. We want a remedy that will at once disorganize the tissue to a depth coequal with that of the chancre. For this purpose I now employ several remedies: highly concentrated nitric acid, the acid nitrate of mercury, the acid nitrate of silver, or the potassa cum calce of the London Pharmacopœia. I have already given a form for the preparation of the second of these remedies; the third is made by dissolving a drachm of the nitrate of silver in an ounce of nitric acid. When it is determined to destroy a primary venereal ulcer with any of the first three caustics, a camel-hair pencil must be dipped in them, and the surface and edges of the sore pencilled thickly over; if the acid be sufficiently concentrated, the whole surfaces touched are at once destroyed, and converted into a yellow eschar, which, on separating, generally leaves a clean simple sore underneath.

How to be employed.

169. When the potassa cum calce is employed, which is the most certain of all the remedies I have mentioned, it must be made into a paste of moderate consistency with spirits of wine, at the time it is wanted for use, and the sore and its edges covered with it. When it has been on a few seconds, a smart burning pain is felt, which continues to increase as long as the caustic is suffered to remain on, which it should be from half a minute to a minute, or even longer, according to the effects produced. After this the caustic must be all removed by means of a fine bone spatula, and the black eschar left may be covered with a poultice, a cold saturnine lotion, or fine, soft, dry lint. The pain soon subsides after the caustic has been removed, and in about half an hour the patient is generally pretty comfortable. The aggregate amount of pain produced by the application of this remedy is not so great as that

by the nitrate of silver, whilst the effect of the potassa cum calce is certain; all the parts touched by it are at once destroyed, and, on the separation of the eschar, we have a clean granulating sore left, which commonly yields with great rapidity, particularly if the ulcer be a recent one.

After-treatment.

170. Whenever, then, a primary venereal sore is presented to us, unless there be some special contra-indication in its situation, &c., it should be immediately destroyed after the manner laid down. If the sore be recent, i. e. of few days' standing, it is very probable we may eradicate the disease at once; the constitution may not as yet have become infected. In other instances it will become a matter of consideration whether any constitutional treatment, and what kind, should be adopted during the healing of the sore produced by the caustic. A poultice is the most convenient and best application during the time the eschar is separating, if the patient can rest, which should always be urged upon him as an essential point, if it can possibly be managed. The moment the eschar begins to be detached, and a secreting surface is exposed, the poultice must be done away with and other remedies employed. Of these, weak lotions are the best. I employ weak solutions of the nitrate of silver, acetate or sulphate of copper, alum, or zinc, or tannin in port wine, in the proportion of about two drachms of the former to six ounces of the latter.

When the use of escharotics is contra-indicated.

171. There are certain conditions of primary venereal ulcers which contra-indicate the use of the caustic in the first instance. If an ulcer of this kind produce violent inflammation of the penis, this must be reduced by a proper general treatment before we have recourse to these remedies, which may be used after the inflammation has been subdued, if the sore be foul and stationary, and show no disposition to heal. The situation of a primary venereal sore frequently altogether prevents the use of the remedies in question; for instance, chancre situated under the prepuce, and producing complete or partial phymosis. In such cases there is generally more or less inflammation or tumefaction of the penis, more or less

discharge from the preputial opening, and a distinct hardness can be felt, tender to the touch. This hardness may be lesser or greater according to the size of the concealed sore; I have felt it extending from the prepuce, under the skin of the penis, down nearly to the pubes. It is almost useless, in such cases as these, to attempt the reduction of the inflammation of the penis by the ordinary means, which would succeed, were the surface of the sore exposed and not so situated. It must be borne in mind that the situation of the sore produces and keeps up the inflammation, and the phymosis which is dependent upon it. If the inflammatory symptoms in such a case run very high, general bleeding, aperients, rest, fomentations, and low diet, may be employed as preliminary measures, and we may succeed in subduing the inflammation more or less completely by these means. We must not, however, conceive that we have completely succeeded, unless we can reduce the phymosis, and expose the sore to view, the grand object towards which all our treatment should be directed.

Inflammation of the penis and phymosis.

172. These measures, then, in chancre, with inflammation of the penis and phymosis, may, and perhaps must be, resorted to in the first instance; but if, after a reasonable time spent in their employ, the inflammation and tumefaction of the penis do not give way, and we cannot denude the glans, recourse must be had to the operation for the relief of the phymosis, and the surface of the sore then exposed must be instantly pencilled over with one of the liquid caustics before recommended. By these means we shall prevent the inoculation of the recently-cut surfaces. The parts should then be covered with pledgets of lint soaked in port wine, rendered strongly astringent by tannin, and the whole enveloped in a poultice.

Inflammation accompanying primary venereal ulcers.

173. All primary venereal ulcers are attended, in the commencement, with more or less local inflammation, sometimes of so violent a character as to produce pretty smart symptomatic fever. Indeed, some of the most appalling results we witness, under circumstances of this kind, arise from the excess of local inflammation and the sloughing, rapid ulceration, or gangrene which is its result.

I am convinced, from a very extensive experience in the

treatment of syphilitic diseases, that many of the ill effects produced by primary sores are attributable to the want of a proper regimen on the part of the patient, and, perhaps, also to a want of sufficient directions on this point on the part of the surgeon.

Whenever we are consulted by a patient with a primary venereal ulcer, particularly if it is the first from which he has ever suffered, it will become necessary to point out to him in as strong terms as possible, the necessity of his adhering rigidly to a very abstemious diet till the ulcer assumes a granulating condition; it is well, also, at this period, to administer repeatedly, for some few days, aperient medicine, and to insist on a total abstinence from malt liquor, wine, or spirits. If the patient, from circumstances, cannot lie by and rest altogether, press upon him the advantage of retiring early to bed, rest in bed being a most important auxiliary in the treatment of all forms of primary syphilis. It is very easy to regulate all these matters in the hospital; but in private practice, to which I am now more particularly referring, such means cannot always be adopted; and I am afraid their extreme importance and advantage are not always stated in as strong a manner as they should be to the patient.

Question of mercurial treatment considered.

174. Whether it be the intention to submit the patient ultimately to mercurial treatment or not, these preliminary cautions should never be omitted. Many of the evils attendant on mercurial courses are to be attributed to not preparing the patient by diet, rest, and aperients, for the administration of this medicine. I am far from subscribing to the tenets of those who treat syphilis systematically on what is termed the rational or simple plan without mercury: but I must bear so far testimony in favour of this school to say that they have conferred an immense advantage upon society by pointing out that diet, rest, simple dressings, and an antiphlogistic regimen, have a vast influence over the ravages produced by syphilis; and wherever mercury is exhibited for the cure of syphilis, more particularly its primary forms, let the concomitant measures relative to diet and regimen be these which the rational school teaches, and I have just laid down.

If mercury be given for the cure of a primary venereal ulcer it should not be used till the patient has been prepared to receive it by adopting, for some days, the regimen laid down, and till all inflammation produced by the action of the escharotics has subsided; it may then be employed with every hope of realizing its most beneficial effects. To throw it carelessly in without these precautions, under a vague impression that mercury is a specific for syphilis, is worse than injudicious; it is criminal, and cannot be too much censured.

Mercury recommended.

175. Having arrested the progress of ulceration in the primary venereal ulcer, and brought it to the condition of a granulating sore, a change in the plan of treatment becomes necessary, both constitutionally and locally. If mercury be used, now is the time to have recourse to its employ with the full hope of realizing its most beneficial effects. It is not necessary here to enter into any disquisition as to the comparative merits or results of the simple and mercurial plans of treatment. The balance is immensely in favour of a modified mercurial course, and, holding such an opinion, I should be disposed, unless specially contra-indicated, always to recommend to my patient, at this period of his disease, a mild mercurial treatment.[1] I refer the reader to the section on the

[1] The reader may consult, if he thinks proper, the works of Wallace, Ricord, Desruelles, and Cullerier, on the points here in question. He will find all admitting the superior efficacy of mercury in hastening the cicatrization of a primary venereal ulcer, and diminishing the risk of secondary symptoms. The last three—partisans of the simple treatment—recommend mercury, when the sore is indolent, does not cicatrize under the simple plan; when its edges are hard and elevated, or the sore leaves behind it, in healing, an indurated cicatrix.

Mercury, although not a specific against syphilis, is the most powerful therapeutic agent we can employ, in many cases, in its cure. (Ricord.) I am far from rejecting the internal use of mercury in the treatment of the primary venereal ulcer. I believe that in many cases it is necessary, and even indispensable. (See Cullerier, op. cit. p. 186; and the remarks of Desruelles, op. cit. pp. 313-5.)

Lugol believes that the simple or rational treatment of syphilis without mercury favours the development of scrofula in a future generation. (See his work translated by Dr. Ranking.)

"Mercurial Treatment of Syphilitic Diseases," for rules to regulate him in the exhibition of mercury; and to the section on "Particular Preparations of Mercury, &c." for forms for its employment.

Local treatment of the second stage of chancre.

176. The local treatment of the sore must also be changed when the granulating process has commenced; and as mercurial applications are generally injurious during the ulcerating stage of chancre, so are they beneficial during the stage of reparation. Dr. Wallace employs, as local applications during this stage, calomel and lime-water, mercurial ointment, the ung. hydrargyri nitratis, the bichloride in lime-water, or in distilled water: these applications being enumerated in the order of their stimulating properties. The aromatic wine, with or without tannin, will be useful if the sore secrete much pus; if the surface of the sore be dry and foul, great benefit will be found by alternating the dressings with the wine, and some detergent ointment.[1]

Local applications.

177. The local applications must be varied to suit the actual condition and aspect of the sore: hence, should it be painful, opium combined with the remedy we apply is useful.[2] Should the irritability of the ulcers be of the inflammatory kind, it will be necessary to leave off all stimulating dressings, and have recourse to emollient fomentations, and the simple or opiate cerate. Cullerier employs as topical applications, when the inflammatory symptoms have subsided, solutions of the nitrate of silver, sulphate of copper, mercurial ointment, or pomades of calomel and opium or mercurial ointment and opium.[3] All these varied preparations may be found useful in

[1] ℞. Resinæ flavæ.
Gum. elemi.
Ceræ flavæ, āā ʒj.
Ol. olivæ, ʒvj.
Olei terebinth. ʒij. M. ft. unguent.

[2] ℞. Cerat. opiat. ʒj.
Hyd. chlorid. ℈ij. M.

[3] ℞. Cerat. opiat.
Ung. hyd. fort. āā ʒj. M.

various conditions of the surface of the primary venereal ulcer. The condition of the latter is the only circumstance that can guide us in their proper mode of application.

Topical mercurial application in the second stage of chancre.

178. Dr. Wallace thinks topical mercurial preparations of great value in the treatment of primary venereal sores, in the second stage, and believes that, in some measure they supersede the necessity of an internal mercurial treatment. "In dispensary practice, and among the lower ranks of society, the internal administration of mercury, particularly at inclement seasons of the year, can seldom with safety be recommended. In such persons, and under such circumstances, topical applications are of infinite value. In cases of this kind I generally confine my treatment to them, in conjunction with the internal use of nitrous acid, and, by these means, succeed for the most part in healing the disease with rapidity. Cases treated in this way are also very rarely followed by secondary symptoms. [1]

The indurated primary ulcer.

179. The indurated primary ulcer demands a treatment, both local and general, in some measure different from the ordinary forms of disease. This requires a full mercurial course till the sore has healed without induration of the cicatrix. It must be recollected I limit the expression "indurated" to an ulcer that is so from the commencement of the disease, and do not apply it to those sores which have become indurated from the repeated application of stimulating dressings. Local treatment is not generally so efficacious in ameliorating the condition of this as the other varieties of primary syphilis; the sore is not commonly much benefited except through the medium of the constitution. Dr. Wallace gives some good diagnostic marks by which we are enabled to distinguish between the induration which is the natural attendant upon this species of ulcer, and that which is produced in ordinary simple sores by the injudicious application of remedies: "We may always distinguish by the history of the case and by the character of the areola, the indurated ulcerations which are connected with irritation or inflammation. Thus, if indu-

[1] Wallace, p. 113.

rated primary syphilis be not attended by these morbid states, it will not be surrounded by an inflamed, but by a callous or livid white areola, with or without a whitish line at the very edge or margin of the ulcerated surface; or else the skin surrounding the ulcer will present its natural appearance." (pp. 310-11.)

Persistent induration of the cicatrix.

180. There is one symptom succeeding to primary ulcers which sometimes occasions considerable anxiety to the patient and annoyance to his surgeon; this is, "induration of the cicatrix." After the healing of a primary sore the cicatrix occasionally remains hard and elevated, and is prone to ulcerate on the occurrence of the slightest exciting causes. This local condition denotes the persistence of syphilitic action on the system, and is the "forerunner of accidents to come." A patient in this condition may daily look for secondary local ulcerations of a rapid and destructive character, and constitutional symptoms of the most formidable kind. It, therefore, behoves him to adopt speedy means for the removal of the induration, which may be generally accomplished, and till that period arrives he cannot be considered safe.

It has been proposed to destroy the induration with caustic or excise it with the knife; both these methods are objectionable, and founded on ignorance of the nature of the local affection, which is to be looked upon as a symptom of constitutional taint, and not as a local disease. Dr. Wallace's advice on this head is judicious: "My conduct on this point of practice is to persevere with the use of mercury, provided it agree with the system, for at least ten days or a fortnight after the induration may have ceased to diminish."

I could detail a number of cases of induration of this character which I have entirely succeeded in removing by the following treatment. The patient should have his diet regulated, and be prepared for the use of the mercurial vapour-bath, which should be employed three times a week; at the same time, he should rub in every night a drachm of mercurial ointment till the mouth becomes sore, which should be kept

so till the induration is gone; with this the hydriodate of potass should be taken in five-grain doses twice a day. Few recent indurations will resist a perseverance in this plan of treatment. If perfectly chronic, and of long standing, the case may be more obstinate.

CHAPTER IX.

OF CHANCRES OF THE URETHRA.

History of the disease.

182. CASES of syphilitic ulcers in the urethra have been cursorily alluded to by many surgical writers. Hunter mentioned them, but certainly had no clear idea of their true character and effects; they are also noticed by Mr. R. Carmichael in his clinical lectures on Venereal Diseases. The late Dr. Wallace spoke of some discharges from the urethra of venereal origin, which were only curable by mercury, but it has been left to modern surgical pathologists, amongst whom must be particularly mentioned Monsieur Ricord, to demonstrate that primary venereal sores, precisely resembling in their nature and consequences sores situated externally, may exist in the canal of the urethra itself, at variable points between the meatus urinarius and the bladder.

183. It is clear, both from the statement of English and French writers, that discharges from the urethra are due to more causes than one; and hence it is that we find Dr. Wallace saying, "that there occur cases of these discharges, in which we find mercury to act in the most salutary manner; and others again, in which the discharge will continue, and be, after a time, followed by induration and bubo, and most probably, by secondary symptoms, unless this medicine be given." [1] When we consider the generally powerless effect of mercury over pure gonorrhœa, we cannot but suppose that

[1] Op. cit. pp. 248-9.

these remarks of Dr. Wallace must refer to chancres or venereal ulcerations of the urethra, which an imperfect diagnosis has confounded with gonorrhœa.

184. These are heat, itching, or irritation in the urethra, occurring after a suspicious connexion, unaccompanied by discharge; pain or tenderness in a particular part of the urethra when it is rolled between the fingers; the presence of a distinct induration at the point where the pain is complained of; pain also increased during micturition, and referred to the same point. Discharge from the urethra occurs at various and at irregular periods after the setting in of the first symptoms already described. It is very different from the discharge of gonorrhœa; it may be sanious, bloody, or of a sloughy character, and commonly does not flow unless the indurated portion before described be pressed forcibly between the fingers. Symptoms.

A gentlemen consulted me for a disease in the urethra, which had existed many months, and which he said consisted at first in a small sore, visible when the lips of the meatus were separated, This part had healed; but it was evident that the ulcer had extended its ravages down the urethra, since, on pressing an induration which existed behind the glans between the fingers, there escaped from the urethra a tenacious slough, precisely resembling that covering an indurated or Hunterian chancre in its first or ulcerating stage.

185. The only disease for which chancre of the urethra can be mistaken is gonorrhœa. From this it is to be distinguished by the history of the case, the character and quantity of the discharge, the presence of a distinct circumscribed induration in some part of the urethra, most commonly seated in or immediately behind the glans penis. This circumscribed induration must not be mistaken for that general induration of the corpus spongiosum urethræ which accompanies acute gonorrhœa, and results from an effusion of lymph, &c. into the cells of the spongy body. This state in gonorrhœa is generally accompanied by chordee, a symptom absent in chancre of the urethra. Differential diagnosis.

186. In cases where muco-purulent discharges from the

urethra continue to resist the usual methods of treatment we may resort to the means of differential diagnosis, of testing the character of the disease by inoculation. M. Ricord[1] has established that the inoculation of the skin of the thigh, the prepuce, or elsewhere, with the matter of pure gonorrhœa produces no result, or at best a negative one. The same inoculation with matter from the urethra, secreted by a chancre in that part, gives a characteristic pustule, and subsequently a chancre or sore of venereal aspect. In eighty-five cases of urethral discharges, thus tested by M. Mairion, at the military hospital of Louvain, four were found of true syphilitic character, and produced chancres by inoculation, the remaining eighty-one gave no result—they were cases of simple gonorrhœa.

Combination with gonorrhœa.

187. In some rare cases I believe it possible that a primary venereal sore in the urethra and gonorrhœa may be contracted by the same connexion. I will mention a case which seems to bear upon this point. A gentleman, fifty years of age, contracted from a suspicious connexion a discharge from the urethra, which had all the characters of ordinary gonorrhœa; he placed himself under the care of an eminent practitioner, and took for a month the ordinary remedies, such as copaiba and cubebs: with this treatment the discharge disappeared. At this time a slight ulceration was perceptible round the meatus, which seemed to come from within the urethra. This spread rapidly, soon involving the whole under surface of the glans, and the urethra for an inch and a half, which were entirely destroyed by ulceration and sloughing. I was consulted on this case, which was succeeded by extensive nodes, and a pustular eruption, and what is very remarkable, the nodes were the first constitutional symptoms which occurred, an exception to the law which seems to regulate the appearance of constitutional symptoms generally.

Case.

I believe the poisons of gonorrhœa and syphilis to be per-

[1] See the chapter on "Inoculation," and the cases of "chancres larvés," in Ricord's work, before referred to.

fectly distinct, but yet there are cases occasionally presented to our notice where both chancres and gonorrhœa exist at the same time.

It is not uncommon to see patients with external sores and a true gonorrhœal discharge from the urethra at the same time; neither, in the female, is it rare to see true primary venereal sores in the vulva, vagina, or uterus, coexisting with purulent discharge from the os uteri or urethra. In the male, however, more particularly, these two primary forms of disease are not curable by the same remedies. In the case I have just quoted, it appeared that the two forms of primary venereal infection existed simultaneously in the urethra at the commencement, since the symptoms of gonorrhœa disappeared under the use of the ordinary specific remedies; whilst the venereal ulcers continued to spread, and ultimately produced the most serious mutilation. We have no further proof of the opinion I have hazarded than is to be drawn from the effect of remedies, a fact to which I am disposed to attach very considerable importance.

Complication with external ulcers.

188. Chancres in the urethra may be met with as a solitary form of primary venereal infection, or they may coexist with sores situated externally. The case of M'Knight, subsequently recorded, is a proof of this. It very commonly happens, also, that the presence of external sores, and the absence of discharge from the urethra, prevent any examination of the latter. In examining, however, a patient who applies with a primary venereal affection, the canal of the urethra should always be pressed between the fingers, and the lips of the meatus opened.

Case.

A gentleman contracted several small sores situated on the glans and prepuce; they were free from pain and irritation, and healed quickly under ordinary treatment; the glans, however, became swollen, red, and shining, and yet there was no external symptom to account for it. It at length occurred to me to examine the urethra, and on everting the lips of the meatus a small sore was discovered, upon which the condition of the glans was evidently dependent, since it disappeared as soon as the sore in the urethra healed.

Prognosis.

189. The prognosis of chancres in the urethra is not always favorable; Ricord has shown that by extension to the bladder they may terminate fatally. The prognosis is again unfavorable as regards the integrity of the organs of generation, since, however carefully they may be watched, severe mutilations are occasionally produced. The chief evils I have seen arise from chancres in the urethra have been the following:—

Consequences.

1st. Contraction of the orifice of the urethra by the cicatrix of the chancre. I attended a gentleman who had a chancre of the orifice of the urethra, which, in healing, so contracted the meatus orifice, that it would not admit the bulbous extremity of an ordinary silver probe.

2d. Contraction of the urethra by the cicatrix of the chancre where the sore has been situated lower down. To this species of stricture the term traumatic has been applied. It does not readily yield to the bougie.

3d. Perforations of the urethra. These are variable in extent and situation, but are commonly situated immediately behind the glans. I have said that a very common seat of chancre of the urethra is the fossa navicularis, and the glans is sometimes scooped out as it were by the spreading of venereal ulceration in this situation. I have seen this passage behind the glans opened for an extent of an inch and a half by the ravages of an urethral chancre.

4th. The urethra itself may be completely destroyed to a greater or less extent. Of this also I have seen one example, where the passage was destroyed by ulceration for two inches, and the urethra opened on the under surface of the body of the penis.

I can conceive of nothing more horrible to a young man than mutilation of this character, which, in spite of all our care and attention, will sometimes take place, if the disease assume a phagedænic form, and spread by rapid ulceration or sloughing. They are not, however, so likely to happen if the disease has been at once diagnosticated and properly treated from the commencement.

190. Constitutional symptoms are just as likely to occur in consequence of primary venereal diseases in the urethra, as when such sores are situated externally. Constitutional symptoms.

191. The question next arises, how are primary venereal sores situated within the urethra to be treated? The situation of these sores precludes the adoption of the practice I have recommended to be employed in primary venereal sores situated elsewhere. Treatment.

The use of caustics is clearly impossible, unless the sore be situated immediately within the urethra, and even then their application will require great care and attention, and is not generally to be recommended.

From the situation of a primary venereal sore in the urethra, we are prevented employing the local remedies commonly used in the treatment of chancre; and an indiscriminate course of mercury is still more useless and injurious.

The existence of chancre of the urethra being ascertained, the inflammatory symptoms are to be first subdued, by a treatment appropriate to the earlier stages of gonorrhœa; diet, rest, diluents, and cathartic medicines, with emollient injections. Afterwards we may resort to injections with aromatic wine, or solutions of the nitrate of silver, or the solid nitrate may be introduced, and the surface of the sores cauterized, if the inflammatory symptoms are not too acute, and the chancre situated within reach. It is useful to introduce a small plug of lint into the urethra, impregnated with the injection we employ, with a view of keeping the surface apart, and preventing any extension of the disease.

192. Mercury may be employed, in chancres of the urethra, at the period, and in the manner before recommended in the treatment of simple primary venereal sores, attending to the local aspect of the sore during its administration. Mercury.

The following case illustrates the practice of Cullerier in these forms of disease.

193. A man entered the venereal hospital, said to have suffered from gonorrhœa for twelve months, in the treatment of which copaiba, cubebs, and various astringents had been Case.

vainly employed by a variety of surgeons. The discharge, from the patient's account, had never been very profuse; on pressing the urethra firmly there hardly issued some drops of pus. The glans was considerably swollen, and its summit the seat of an induration the size of a nut, surrounding the meatus. On separating the lips of the orifice a large chancre was discovered, which had burrowed itself deeply into the parietes of the canal. This patient had been submitted to several mercurial courses without benefit, because (says M. Cullerier) the local treatment of the sore had been neglected. All internal treatment was now suspended; a strict dietetic regimen and repose were directed to be observed, and leeches were applied from time to time. In the intervals, a piece of lint, covered with opiate cerate, was kept in the urethra; emollient fomentations were frequently used, and the penis enveloped in a poultice. Under the influence of these remedies the inflammation soon disappeared, the sore became clean, and a few applications of the nitrate of silver were sufficient to effect a cure.

Case. 194. Robert M'Knight, by trade a Scotch hawker, aged twenty-nine, contracted, from the same connexion, sores on the penis and a running from the urethra, seven years ago. The ulcers on the penis were cured, very likely by a mercurial course, as M'Knight has been repeatedly salivated. The treatment which cured the external sores had no effect upon the discharge from the urethra; this continued: it has been repeatedly treated, but never cured. Soon after this, scaly blotches appeared on the forehead and other parts of the body, which disappeared under medical treatment. Disregarding the discharge from the urethra, which never disappeared, and fancying himself well, our patient now married. His first child died a few months after birth, covered with blotches: a second and a third child shared the same fate, and died under the same circumstances. The wife also had sores and bloody discharge from the vagina, and blotches on the body, the husband still having no affection except the slight running from the urethra, which sometimes attracted his attention, and at others was totally disregarded.

During these periods M'Knight had, at several times, fresh constitutional symptoms, for which he underwent a variety of treatment, but was never free from the running from the urethra. In November, 1843, between six and seven years after M'Knight contracted his primary disease, he came under my care as a patient of the Queen's hospital. He was then in the following state :—The head and face were covered with foul blotches, which consisted of incrustations or scabs, concealing deep, irregular, and ill-conditioned ulcers; there was superficial redness of the fauces, but no ulceration at this time; he was feeble and emaciated from long-continued disease. The skin disease was evidently pustular in its commencement, as one or two fresh-formed pustules were on the face: these pustules were situated on an inflamed base, and, when they broke and discharged, ran into ulcers, covered with flat or conical crusts, thus constituting a variety of disease to which the term "pustulo-crustaceous" has been applied.

He denied at first having anything the matter with the genitals, but, on closer questioning, admitted that he had a running so slight as to be hardly worthy of notice. On examination I perceived a sanious oozing from the urethra, very different from that which characterizes chronic gonorrhœa or gleet. About an inch from the meatus, immediately behind the glans penis, existed a circumscribed induration, about the size of a hazel nut: this was painful when pressed between the fingers, and the pressure occasioned some blood and portions of white tenacious sloughs to issue from the urethra. On separating the lips of the meatus urinarius, by means of a small speculum made for the purpose, the commencement of ulceration, which appeared to extend deep into the urethra, could be perceived.

This case is remarkable under many points of view. In the first place the disease itself (primary venereal sore in the urethra) is not of every day occurrence, although I have seen many instances of it; again, the time which the sore has existed is remarkable. There is no evidence that M'Knight had ever contracted a venereal disease subsequent to his marriage;

the evidence of the wife and himself is conclusive upon this point. The sores which M'Knight contracted at the same time he contracted the running were cured previous to his marriage, the running still remaining; some days he perceived none; yet having no other disease than that in the urethra, we observe the wife becoming diseased, and three children dying, with unquestionable venereal affections.

This case is one, then, of primary venereal sore in the urethra, contracted at the same time with external primary sores. The primary sores were healed, but the urethral sore remained uncured, and, marrying in this state, his offspring all die diseased, and his wife also is affected.

The patient has had repeated attacks of constitutional disease in the most alarming forms, which have recurred as often as they have been cured, and this I explain by the sore in the urethra being still open and poisoned, and thus forming as it were a well of poison, which is constantly tainting the system.

It is proved by the history of this case, then, which has been very carefully watched and examined, and the history very correctly taken, that primary venereal sores may exist within the urethra for a long period of time. M. Cullerier has recorded a case of this nature, which had, when presented to his notice, continued upwards of a year, and was then uncured, although the patient had been submitted to repeated treatments. These sores may be seated in any part of the urethra, and even in some rare cases extend to the bladder itself.

Case. 195. Thickening and contraction of the urethra, from the cicatrices of venereal sores situated in the fossa navicularis; chancre of the fossa navicularis.

A middle-aged gentleman came from Lincolnshire to consult me respecting what he termed an obstruction in his urethra; he gave the following history of his case:—About eighteen months ago, (Sept. 1843,) shortly after a suspicious intercourse, he perceived a slight discharge from the orifice of the urethra, from which there issued some drops of pus; on separating the lips of the urethra he perceived within them a small sore. He

applied to a druggist, who furnished him with an ointment which irritated the sore, and made it worse. Some time after this, a surgeon was consulted, who recommended mercury; this was taken till salivation was produced. The sore, however, did not amend under its use; it was still to be perceived when the urethra was examined, and the same discharge of drops of pus continued.

He consulted, some time after this, a second surgeon, who cauterized the sore daily with the nitrate of silver; this produced hardness of the glans penis, and discharge of sloughs and blood from the urethra. This state of things continuing, the patient began to lose confidence in the mode of treatment, which he abandoned, and, three weeks after the last application of the caustic, he consulted me. Copper-coloured spots made their appearance on several parts of the body, the arms, and trunk, at this time.

When the patient pressed the urethra forcibly between the fingers, he brought from it a thick tenacious slough, exactly resembling that which covers an indurated chancre in its first or ulcerating stage. The under surface of the glans penis was red and inflamed, and, when this part was examined between the fingers, a considerable induration was perceived, which appeared to exist in the lower part of the fossa navicularis, just within the urethra. When this induration was pressed, there issued from the urethra pus, sometimes mixed with blood, and at times tenacious shreds or portions of sloughs similar to those already spoken of. I examined the interior of the urethra for an inch and a half or more, with a small speculum made for the purpose. A white smooth cicatrix occupied the whole of the fossa navicularis on its upper part and sides; I could not obtain a clear view of the bottom of the fossa, where I believe ulceration still existed. This I inferred from the induration, the redness opposite this part, and the character of the discharge forced from the urethra when the induration was pressed between the fingers.

There were no constitutional symptoms in existence either in the throat, eyes, or vicinity of the anus, since coppered

Treatment. blotches only occupied the arms and legs. In primary venereal sores of the urethra, the local treatment is the main point to be attended to. I never saw constitutional treatment alone cure a venereal sore in this part. I recommended the patient to inject the urethra three times a day with tepid olive oil, and in the intervals introduced into the passage a thin shred of soft lint soaked in a solution of tannin and extract of opium.[1] The lint was kept constantly in the urethra, merely being removed when the patient wished to make water. The patient was also directed to take one grain of the iodide of mercury with three of the extract of conium, in a pill, every night, and to be strictly regular in his mode of life. With very slight modification in the mode of treatment at first laid down, this case was brought in a few weeks to a successful issue, the induration and discharge disappeared from the urethra, and the copper-coloured blotches from the body. There remained merely some contraction of the urethra, produced by the first cicatrix which was materially relieved by the bougie. This constituted what has been termed by some writers "traumatic stricture," very commonly produced by the cicatrices of primary venereal sores thus situated, which, when they do not actually contract the urethra, partially destroy its elasticity, and produce many troublesome symptoms, more particularly a dribbling away of the urine for some minutes after the patient has done making water. This constitutes a species of incontinence of urine whose cause is to be sought for, not in the bladder but in the urethra.

[1] ℞. Tannin, gr. x.
Ext. opii pur. gr. ij.
Aquæ, ℥j. M. ft. lotio.

CHAPTER X.

OF PHAGEDÆNA.

196. Instead of following the regular course of primary syphilis, venereal ulcers sometimes assume a character of rapid ulceration, sloughing, or inflammation, to which the term "phagedæna" is applied. In treating the various forms of phagedænic chancres, we must be guided, in the first instance, by the natural constitution of the patient, and the particular conditions of his health at the time of his becoming diseased; the intensity and character of phagedæna, whether inflamed, foul, or irritable, commonly depending upon the general health of the patient, or upon the circumstances or situation in which he happens for the time to be placed. Hence we must guard against the indiscriminate use of mercury, or of attributing the violence of the disease to any unusual degree of virulence in the venereal poison itself.

Causes of phagedæna

197. The cause of phagedæna is an interesting matter of inquiry. Desruelles, in the true spirit of Broussaism, attributes it to irritation of the viscera, a chronic gastritis, or gastro-enteritis. Ricord believes also that there is commonly an accompanying visceral irritation, but he believes, moreover, that a cold damp atmosphere disposes primary sores to become phagedænic. Mr. Mayo states "that what gives the phagedænic character to sores on the genitals after infection is some peculiarity of the general habit." This is, perhaps, true, but the difficulty is to know in what this peculiarity consists.

Varieties of phagedæna

198. Phagedæna is generally divided into the ulcerative and sloughing. Dr. Wallace has attempted a classification which he thinks "may be of some practical importance towards the discrimination and management of these frequently formidable diseases."[1]

Local treatment.

199. The local remedies best suited to the different varieties of simple phagedæna are, the nitrate of silver, either solid or in saturated solution, applied with a pencil; the pure nitric or nitro-muriatic acids, the white muriate of antimony, or a saturated solution of the bichloride of mercury in alcohol. In the sloughing or foul varieties of the simple phagedæna, alternate dressings of the aromatic wine and a detergent ointment[2] may be employed; the surface of these sores may be washed frequently with strong solutions of the chlorides of soda and lime.

Inflamed variety.

200. In the inflamed variety we must employ rest, general and local bloodletting, emollient fomentations or lotions, and poultices, purgatives, antimonials, and abstinence. In this variety with white or black slough, Dr. Wallace thinks the application of the nitrate of silver hurtful; and in fact we should do well to observe what he says of its use in phagedæna generally—that, used too long, or repeated too often, it will produce consequences in some respects as unpleasant as those which result from an overdose of mercury. In the inflamed phagedæna, with or without slough, a purely antiphlogistic treatment, with anodyne fomentations and poultices, is the

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[1] *Phagedænic Primary Syphilis:*

1. Without slough.	2. With white slough.	3. With black slough.
A. Simple.	A. Simple.	A. Simple.
B. Inflamed.	B. Inflamed.	B. Inflamed.
C. Irritable.	C. Irritable.	C. Irritable.

[2] ℞. Terebinthinæ, ℥j.
Vitelli ovi, ℥j.
Olei hyperici, ℥ss. M.
Mix the turpentine with the yelks of eggs carefully in a stone mortar, and add gradually the oil of St. John's wort.

safest practice; leaving the application of stimulants and caustics till all local and constitutional irritation has subsided.

Irritable phagedæna

201. The irritable phagedænic ulcer demands a local treatment different from that of either of the before-mentioned varieties. Some surgeons employ the nitrate of silver, the liquor arsenicalis, or the strong nitrous acid. These, however, frequently dispose the ulceration to spread, particularly where the sore is surrounded by a diffused areola. When this is the case, the opiate cerate, or strong aqueous solution of opium, may be employed, whilst this remedy should be given freely at the same time by the mouth. Amongst preparations of this character, Dr. Wallace speaks highly of mercurial ointment, with the ext. opii, a drachm of the latter to an ounce of the former, or the mel rosæ with laudanum. As a general application to these sores in my own practice, I have succeeded better with turnip or carrot poultices than with almost any other form of remedy. There are, however, individual circumstances depending on the character of the sore, its degree of indolence, irritability, or inflammation, in which the remedies I have mentioned will find their application.

Mercury in phagedæna

202. Surgeons are divided as to the propriety of a mercurial treatment in phagedænic primary syphilis, Mr. Carmichael agreeing with the French school in rejecting the remedy as most dangerous and deceptive in every variety of the disease. "The miserable mutilation and sufferings," says he, "which our soldiers endured in Portugal from phagedænic and sloughing ulcers, at the commencement of the Peninsular war, by the exhibition of mercury, might have inspired the deputy-inspector of hospitals with a desire to obtain information on the treatment of venereal complaints from every source; for our army-surgeons soon discovered that the black lion of Portugal, as the sloughing ulcer was termed, could not be tamed by mercury, and that, without giving a grain of it, the Portuguese practitioners knew better how to effect their object." Sir G. Ballingall, after an experience of many years, informs us, in a recent work, that he quite accords with Mr. Carmichael. Mr. Key, in his Reports of the primary Syphilitic Cases occur-

ring at Guy's hospital, states, that, in the constitutional treatment of these sores, mercury is wholly inadmissible. "It tends," he says, "to increase irritability, to lower the powers of the patient, and therefore to quicken the phagedænic action. Loss of rest, and the irritability of the arterial and nervous systems to which it gives rise, are the prominent points in these cases." I perfectly agree with these authors in condemning the use of mercury generally in phagedænic primary syphilis; yet I am of opinion, (and the result of every day's experience confirms this opinion,) that there are cases of this character frequently occurring in which mercury, judiciously employed, is our best remedy; and this is just the way in which Ricord views the question, when, in speaking of phagedænic chancres, he says (p. 573), "there are circumstances under which a mercurial treatment is followed by the best results, and this fact is constantly proved by the practice of those who avow the most deadly hatred to mercury." It remains, however, to be determined what are the forms of phagedæna in which mercury may be employed with advantage. It may be impossible, in the present state of science, to point out with certainty what these circumstances are. If the disease continue to advance, in spite of the usual remedies, judiciously employed; as a sort of forlorn hope, recourse may be had to mercury, first in form of a local application, and subsequently by the mouth or by friction. In the continuance of the remedy we must be guided by the effects produced, continuing it if the disease appears inclined to yield, or giving it up should it still continue to extend. Mr. Lawrence, whilst he condemns the indiscriminate use of mercury in phagedæna, believes there are circumstances in which it may be employed with advantage, though he does not seem able to point out what these circumstances are. He states that it has often happened to him to see cinnabar fumigations employed as a local remedy in phagedænic ulcerations of the throat accidentally cause copious salivation; and that, in many instances where he had seen this, he had found that the local disease in the throat, as well as in other parts, proceeded very favorably

so that he would not lay it down as an absolute rule that mercury ought never to be employed in these cases, in reference to its general effect upon the system.

The recorded experience of most modern writers on syphilis, to whatever school they may belong, proves that there are constantly occurring cases of phagedæna so intractable under the ordinary treatment that mercury is fled to as a last resource; and there are many of these in which it is perfectly successful. "Nor must it be denied that occasionally a short and brisk course of mercury will give a new turn to the complaint, and cause these troublesome sores at once to close. This remedy, however, should be the last resorted to."[1]

203. Some have endeavoured to discriminate between those forms of phagedæna in which mercury should be used and those in which it should be abstained from. "All the varieties of phagedænic primary syphilis have hitherto been very much confounded together, to the injury of the patient and the confusion of the practitioner." Dr. Wallace's classification of these sores is not founded on the incipient or primary character of the sore, but upon the appearance it may assume during its course, which evidently depend on constitutional causes, the chief divisions being founded upon the degree of irritability or inflammation attending a primary sore, or the character of the slough with which it may be covered; this will be seen by referring to Dr. Wallace's table already quoted. In the first variety of phagedæna, the simple primary sore, without slough, characterized merely by an unusual persistence or activity of the specific action attendant on the ulcerative stage of primary syphilis, Dr. Wallace thinks mercury almost indispensable, and recommends the patient to be brought as quickly as possible under its influence. "But," he adds, "if the patient has been dabbling with mercurial remedies, and if there be reason to suppose that his constitution has been in consequence more or less disordered, we shall act more judiciously by suspending for a time the use of mercury, and en-

[1] Mayo on Syphilis, p. 20.

deavour, by proper measures, but principally by attention to the mode of living of our patient, and by the use of the mineral acids with sarsaparilla, to restore the system to a state of tranquillity before we enter again on mercurial treatment, which may, however, be then used with success.

204. In the inflamed variety of simple phagedæna, the first indications are the reduction of the inflammation, according to the principles already laid down. Mercury may be used at the discretion of the practitioner when the ulcer has put on the reparative process, in the way already recommended for simple primary sores.

Mercury interdicted in the irritable forms

205. In the irritable variety of simple phagedæna without slough, mercury is to be interdicted. In this form of the disease the remedy is always injurious, and, if persevered in, produces an increase "of irritability, local and general, and hectic symptoms of a very unmanageable kind may result." In this form, conium, hyoscyamus, opium, and Dover's powder, (but more particularly opium,) locally and generally, are the chief remedies to be relied on, with sarsaparilla in conjunction with the iodide of potassium, or the mineral acids, or the cold infusion of sarsaparilla in lime water.[1] It is in these cases Mr. Lawrence also thinks the sarsaparilla most beneficial. In the true form of phagedæna without slough, Dr. Wallace recommends a full course of mercury in the first or simple, an active antiphlogistic treatment to precede the mercurial in the second or inflamed variety, and measures calculated to tranquillize the system in the third or irritable.

Occasionally useful in simple phagedæna

206. In the "simple phagedænic primary syphilis, with white slough," Dr. Wallace recommends mercury to be freely exhibited, "wherever it may be seated, and of whatever extent it may be." With the constitution, however, in which this sore occurs mercury is very apt to disagree; and, although

[1] ℞. Rad. sarzæ, ℥iv.
Rad. glycirrhizæ, ℥ss.
Liq. calcis, Oij. M.
Macera per horas 24, in vase vitreo, et in loco frigido, dein cola in usum. Capiat poculum magnum bis die.

the disease may be influenced beneficially, and the remedy properly administered, may quickly excite such sores to separate their sloughs, and cicatrize; a prolonged use of the remedy commonly induces a state which Dr. Wallace calls "febrile mercurial irritation;" and if mercury be continued after this condition of the system has been induced, the sore soon becomes "stationary and sensitive," and afterwards "painful and spreading," whilst secondary symptoms of a malignant character frequently set in.

207. This species of disease is particularly liable to occur at the orifice of the urethra, or just within the opening of the glans penis;[1] and I have seen cases characterized to the patient on the onset merely by a sanious discharge from the urethra, where this passage has been speedily perforated, and the glans partially or totally lost. I would impress upon the surgeon the necessity of examining the urethra in all discharges from it of this kind, since in many instances, two of which are now under under my own care, these discharges are from the surface of a white phagedænic chancre seated just within the orifice of the urethra. Frequent seat of phagedæna

The characters of the "inflamed phagedænic primary sore with white slough" are, a slough of white colour at the juncture of the sore with the living parts, which parts are in a state of inflammation. The distinctive character of the sore is to be drawn from the colour of the slough at the junction of the ulcerative with the living parts, and not from the colour of the slough on other parts of the sore, since these occasionally become black or green from the exposure of the surface to the atmosphere. The first indication in the treatment of this sore is the reduction of the inflammation by an active antiphlogistic treatment, employed, according to the circumstances of the case, generally and locally. I would beg, however, the attention of the reader more particularly to the point I am now endeavouring to make more clear, viz. the indications for the use of mercury in the different forms of phagedæna; and with

[1] See the Chapter on Primary Sores of the Urethra.

respect to the sore under notice, Dr. Wallace states that he has ascertained "an important fact—that mercury, if given in full doses, or so as to produce rapidly its effects on the system, will control, even in its most inflamed state, the progress of the phagedænic disease just described."

Dr. Wallace does not mean to say that this practice should in all cases be ordinarily adopted, but believes that in many cases it will afford the chief, if not the only protection to the patient when the disease is making havoc amongst parts of greatest importance. When employed in this form of disease, it must be combined with an antiphlogistic general treatment, as general and local bleeding, and nauseating doses of antimonials. In support of this opinion, Dr. Wallace adduces a case of obstinate and destructive inflammatory phagedæna. In this instance, "much time had been spent in fruitless endeavours to control the progress of the disease;" the usual remedies had been tried in vain, till the prepuce was lost, with part of the glans, and a large portion of the covering of the testicles. So great was the attendant irritability and inflammation that "mercury was the last remedy one would have ventured to try." The patient was importunate, and threatened to leave the hospital if mercury were not used. Large alterative doses had been employed without effect; it was now given in full doses. "His mouth was made very sore, and the progress of the disease was not only controlled, but almost entirely stopped." Dr. Wallace noticed that "wherever the disease had been extending by a white slough, there or in such parts, though inflamed, the mercurial treatment had acted most beneficially; but that, on the contrary, at some points, where the sore was extending by a black slough, its progress remained uncontrolled or rather aggravated." Dr. Wallace is not satisfied with the degree of inflammation surrounding a primary sore as a rule for the non-employment of mercury, and founds his opinion upon the value of mercury freely administered in syphilitic iritis, and upon the fact that mercurial fumigations, in certain destructive sores of the throat, are frequently very beneficial, though attended apparently by great inflammatory

action. The result of Dr. Wallace's experience in the employment of mercury in these cases has led him to establish a rule to which we are disposed to attach very considerable importance: "That although that form of inflammation which supervenes when a patient is under a mercurial course is sure to be aggravated by persisting in the use of mercury, this remedy will powerfully assist to subdue inflammation which commenced under different circumstances."

Irritable phagedæna with white slough.

208. In the "irritable variety of phagedæna with white slough," Dr. Wallace also thinks a short but full course of mercury the best remedy, if the case have not been previously mismanaged. When it is used it must be very carefully watched, and combined with large doses of opium, Dover's powder, cicuta, hyoscyamus, sarsaparilla, and the carbonate of ammonia, whilst the local treatment must be anodyne and unstimulating. All the forms of phagedæna with white slough are, in the opinion of Dr. Wallace, favorably influenced by mercury. He considers this form of disease to be the result of inordinate action; "syphilis in an acute form, modified by peculiar states of constitution." These peculiar states of constitution, of whatever nature they may be, must render the surgeon circumspect in the employment of mercury, particularly in the onset of the disease, or as a specific remedy; but where the ulceration spreads with rapidity, uninfluenced by the general treatment, and threatens the loss of important parts, mercury must be used; but, until our path be more clear, we shall run much less risk, in doubtful cases, of doing mischief by refraining from, than by employing, mercury.

Simple phagedæna with black slough.

209. The "simple primary phagedæna with black slough" of Dr. Wallace is analogous to the sloughing ulcer of M. Bacot, and is evidently merely a variety of the true Hunterian chancre, an indurated primary sore, with a dark or livid coloured slough. Its characters are "much greater induration of the surrounding parts than any of the other forms of primary phagedæna, scarcely any inflammation, and attended by very little sensibility." Dr. Wallace states that it requires hardly any other form of treatment than the regular primary disease. It is

often very much benefited by the internal employment of the nitrous or nitro-muriatic acids; but "the actions of reparation and perfect cicatrization may be produced in it with much more certainty, in a much shorter time, and with less expense to the constitution, by a mild and well-regulated course of mercury than by any other means."

210. This disease, however, generally occurs in constitutions very susceptible of the mercurial influence, and hence the exhibition of the remedy requires more caution in its management than in the simple primary sores. Great advantage will be derived from the occasional interruption of the medicine, and from substituting, during its omission, remedies that are calculated to improve the general health, and tranquillize the nervous system.

Gangrenous phagedæna.

211. The two remaining forms of phagedæna are the inflamed and irritable varieties with black slough, the sloughing phagedæna of authors generally, the gangrenous ulcer of Mr. Bacot, and the "chancre phagédenique gangreneux" of Ricord. In these forms all writers agree in condemning the use of mercury; the disease is to be treated on the principles which should regulate us in the management of similar diseases arising from causes not syphilitic.

It must be recollected, however, when the sore has been brought to granulate and heal by proper remedies, that it has had a venereal origin, and perhaps has succeeded to a regular primary sore, rendered gangrenous by irregularities and bad management, and that it may be followed by secondary symptoms. "It is more than probable," says Mr. Bacot, "that secondary symptoms will not ensue; and, if they should, it will be time enough to arrest them when they appear. But it is, I think, not only fair towards the patient, but prudent, to explain to him the probabilities of the case, that his attention may be awakened by any deviation from his usual state of health, and that no time be lost under a mistaken view of his condition."

212. It will be evident from what has been already stated that mercury is not to be generally employed in phagedæna,

although there are cases in which its use may be beneficial. Venesection, and tartar emetic[1] in the inflammatory forms; the dilute nitric acid or the hydriodate of potass with sarsaparilla, opium in large doses to allay pain, &c. are the remedies most commonly useful. In the way of local treatment, which is very important, no applications are better than strong nitric acid, or the acrid nitrate of mercury "used freely to the sore, and repeated till a clean vascular surface comes into view." The first or second application is not attended with considerable pain, as the disorganized surface tends to protect the more sensitive parts underneath; but as the slough becomes detached, the pain is increased on each successive application. If the slough be reproduced it may be dressed with equal parts of balsam of Peru and castor oil.[2] Dr. Tuohill, of Dublin, has employed creasote with success in phagedænic ulceration, after the failure of other remedies. (See his communication in Dr. Graves's "Clinical Medicine," p. 383.) This gentleman has also used belladonna as a local application with benefit; a piece of the extract, the size of a pea, rubbed down with a dessert-spoonful of water. The sore is dressed with lint, soaked in this solution, and covered with oiled silk.

213. Secondary phagedænic ulceration is exceedingly common in the throat, and attacks patients whose constitutions have been broken down by protracted syphilis, and the injudicious or excessive use of mercury. The ulcers may be touched with the "acid nitrate of mercury," and the patient

[1] Carmichael's antimonial solution.

℞. Antimonii tartarizati, gr. iv.
Tincturæ opii, ʒj.
Tinct. card. co., ℥ss.
Syrupi, ℥ss.
Aquæ, ℥vij. M.

Administered in the simple or compound decoction of sarsa in cases of primary venereal sores, where much inflammation is present; also in the feverish or early stages of all venereal eruptions.

[2] See "Egan" On Primary and Secondary Phagedæna. (Dublin Journal, January, 1845.)

treated with the internal remedies already spoken of. The sarsaparilla broth, given to patients who are weak, or have been badly fed, is a very good remedy.[1] The secondary skin diseases succeeding to primary phagedæna are generally of a rupial character, (Carmichael;) they may also assume the papular or pustular form. The pustules become covered with thick black crusts, which, on falling, leave a sore which has a disposition to heal in the centre, whilst it spreads on the edges.

[1] ℞. Decoct. sarsæ. comp. lb.ss.
Carnis bovis, lb.ss.
Coque simul super lento igne ad dimidium, sumatur quotidie (calidum).

CHAPTER XI.

OF VENEREAL ULCERS IN THE FEMALE.

214. PRIMARY venereal ulcers in the female are frequently seated in the external parts, as the labia majora, the nymphæ, the folds of the mucus surrounding the clitoris, and at the orifice of the vagina. There are, however, constantly presented to our notice females who have no trace of disease on the external parts, but who apply for assistance because they have produced disease in healthy men who have cohabited with them. On examination with the speculum these females are found to suffer from different forms of disease of the neck of the womb which are not manifested by any external sign, or in fact by any symptom whatever. The affection of the neck of the womb presents numerous forms, many of which are capable of producing ulcers of the penis from cohabitation. In the first form, the neck of the uterus is red and swollen, but not in a state of true ulceration. If erosions exist, they are too slight to be perceived by the naked eye. The condition of the neck of the womb in this variety of complaint resembles very much that of the glans penis in balanitis or external gonorrhœa. Frequently the neck is covered with ulcerations, more or less numerous and deep, from which oozes a virulent sanies. These are in all probability true chancres. They resemble chancres of the penis in their history, duration, and more particularly in the fluid they secrete. Occasionally the true indurated chancre is found in the neck of the womb, though this form is not so commonly

Situation.

Varieties.

Treatment.

met with as the other varieties. It is not necessary to enter into any details as to the treatment of primary venereal ulcers in the female; they are to be dealt with in the same manner as primary venereal sores generally, the situation in which they are found is the only circumstance which can in any respect modify the treatment; and hence it is almost impossible to cure them properly without the aid of the speculum to separate the parts for the purpose of cleaning them thoroughly by injection, or applying any local remedies the nature of the sores may require. The situation in which these sores occur renders their speedy cure very difficult; for, whilst chancres of the penis are generally healed in two or three weeks, these diseases of the neck of the womb commonly require as many months. In the deep-seated parts of the vagina, chancres are rare. These sores may exist for an indefinite period without producing constitutional symptoms, and without the patient being aware of their existence. Many of these conditions accompany the constitutional forms of disease, and many again though coexisting with syphilis are not specific, but the result of ordinary inflammatory action.[1]

Circumstances which render the cure tedious.

[1] I must again refer the reader to Dr. Bennet's admirable monograph, on this subject, already quoted. See also Gibert's 'Manual des Maladies Vénériennes,' which contains some excellent remarks on primary and secondary venereal ulceration of the os uteri.

CHAPTER XII.

OF BUBO.[1]

215. BUBO may be of two kinds, either simple or syphilitic, and may be either a primary or secondary affection, succeeding either to chancre, gonorrhœa, or balanitis, or making its appearance without any one of these diseases having preceded it. The true venereal bubo is most commonly preceded by one of the affections I have mentioned, but may occur, though rarely, as a primary syphilitic symptom; it is then termed "bubon d'emblée." Authors are divided as to the frequency of its occurrence under the latter form; I believe it to be rare. It very commonly happens that the most formidable buboes succeed to affections so trivial, that they have even escaped the observation of the patient; and hence we shall frequently, when called to treat buboes which are said to have been preceded by no other syphilitic affection, discover, on drawing back the prepuce, a slight balanitis or excoriation, or the fresh cicatrix of some trivial ulcer. The syphilitic bubo may, however, occur as a primary symptom. Its varieties.

216. Bubo may be, as I have said, either simple or syphilitic, sympathetic or virulent. Ricord has instituted the test of inoculation as a means of differential diagnosis between the two. The virulent bubo, that arising from the absorption of pus from a chancre, is a disease precisely similar to chancre, differing from it only in its seat and in the anatomical organi- Inoculation

[1] Adenitis.

zation of the parts in which it is seated. The true venereal bubo is the only one which gives a characteristic pustule by inoculation; and is the only certain means of enabling us to determine whether a bubo is venereal or sympathetic. In cases where bubo occurs as a primary symptom, this test becomes of the utmost importance, since by its results alone can we be led to frame a rational plan of treatment.

Causes. 217. The causes of bubo are various: in addition to their true venereal origin, they frequently arise from excessive indulgence in venereal pleasures with a healthy female; they may also result from fatigue, long journies taken on foot, sudden and violent exertion, or from ulcers situated upon any part of the lower extremities. It may generally be assumed that the bubo d'emblée is not syphilitic, so rare is its occurrence as a venereal affection in this form. Any stimulus, acting for a longer or shorter period of time upon the parts contained in the inguinal region, is liable to be followed by simple bubo.[1]

Abortive treatment. 218. It is of great importance to the patient that bubo should be dispersed, if possible, and not suffered to suppurate, the latter process involving a long and most troublesome disease, fraught with endless inconvenience, pain, and even danger. In the first stage of bubo, when the inflammatory symptoms are not marked, M. Ricord recommends rest and compression. This author has remarked that, in patients wearing trusses, buboes are seldom if ever developed on the side where the pressure of the truss is acting, but on the opposite one; hence in the first stage of bubo, that of mere enlargement, without any acute inflammatory action or pain, a well-regulated pressure, by means of an appropriate bandage or apparatus, is frequently successful in dispersing the tumour. This plan of treatment is above all useful in the bubo "d'emblée." It must be associated with an antiphlogistic regimen, rest, and gentle aperients.

[1] See the remarks of M. Beaumés on this subject, Journal de Médecine et Chirurgie Pratique, art. 427 and 936.

219. The same plan of treatment may be followed in the treatment of the true syphilitic bubo, unattended by much pain or inflammation. In this stage, unless specially contra-indicated, mercury may be employed to assist the resolution of the tumour. The primary syphilitic bubo may, (says Dr. Wallace,) in its first stage, be resolved, in ninety-nine cases out of a hundred, by mercury; if this medicine be used after the plan recommended for primary syphilis, and if its operation be assisted by rest, laxatives, abstinence, and cooling lotions.[1] It is well, in reference to this opinion, to remark, that a vast number of those buboes which succeed to true chancres are sympathetic, that is, when they suppurate, they do not furnish or secrete a specific pus. Hence it must be evident that the general employment of mercury is, to say the least, unnecessary, except so far as it may be used with a view of controlling inflammatory action. Cullerier thinks that, at this period, uncertain as we must be as to the true character of the bubo, that it should be treated as a pure and simple inflammation. When accompanied by chancre, it is of vast importance to our success in the resolution of the bubo to allay all pain or irritation which may exist in the sores themselves; and for this purpose the aqueous solution of opium before recommended will be found of great service. Use of mercury.

220. When the commencement of bubo is accompanied by much pain, tenderness on pressure, or heat of parts, the local abstraction of blood may be necessary, although I have not a high opinion of this measure in the resolution of bubo generally. It may even be necessary to bleed from the arm if the patient be plethoric, and the local disease associated with general excitement or much symptomatic fever. In local bleedings thus employed, it will be found advantageous to apply a small number of leeches, from four to eight, or more, and wait till the oozing of blood begins to cease, then to apply another relay of leeches so as to keep up a constant draining of blood from the part for twelve or more hours. This form Antiphlogistic treatment.

[1] Op. cit. p. 356.

of bleeding, termed "permanent," is found to reduce the inflammation more certainly and speedily than the application of a large number of leeches at once. Two, three, or more relays of leeches may be thus employed, proportionate to the strength of the patient and the intensity of the local disease.

Malapert's abortive treatment.

221. The method originally proposed by M. Malapert, a French army-surgeon, is perhaps well calculated to disperse the incipient bubo. This method consists in the application of blisters, and a solution of the bichloride of mercury.[1] The bubo is to be covered with a blister about the size of half-a-crown, larger or smaller, according to the size of the tumour; the following day, when the epidermis is detached, a small portion of lint is to be moistened in a solution of the bichloride of mercury,[2] and laid upon the denuded surface. This is to be kept in its place for two hours by bandages, or strips of adhesive plaster; when it is removed a dark brown eschar will be found already formed. The parts are now to be covered with a simple poultice, a cooling lotion, or a solution of opium, and the patient is to be kept as quiet as possible till the eschar thus produced has separated; when this has taken place the tumour is found materially diminished, or altogether gone. If the tumour be of large size, or very indolent, a second or even third repetition of the process may become necessary.

222. Hundreds of cases of bubo have been, and are daily, thus treated successfully in the French army, without the patients being confined to bed, or without their taking mercury internally, or using it by friction. M. Malapert's patients have taken during the time of treatment the decoction of sarsaparilla, but this is not considered at all essential to the success of the treatment. M. Malapert employed blisters with cauterization chiefly against the incipient bubo either indolent

[1] Archives générales de Médecine, Mars 1832. Du traitement des maladies vénériennes par l'application directe du deuto-chlorure de mercure en dissolution sur les tissues affectés primitivement ou consécutivement.

[2] ℞. Hydrargyri bichloridi gr. xx.
Aquæ destillatæ, ℥j.

or inflamed; since that time a paper has been presented to the Academy by M. Reynaud, of Toulon, in which the same process has been directed with almost equal success against bubo in its second and third stages, even where the collection of pus has been considerable. The plan of MM. Malapert and Reynaud has now been universally adopted in the French Venereal Hospital by Cullerier and Ricord with most marked success. The former of these authors says, we have tried this practice for three years in this hospital, under circumstances the most varied; it is a method really efficacious, and ought to hold a distinguished rank in the treatment of bubo: in the first stage of this affection, M. Cullerier states that he does not recollect having seen it fail.

When most efficacious.

223. This plan of treatment is most certain in its effects when employed in the first stage of bubo, when the inflammatory symptoms do not run high; it may be resorted to in all other forms of the affection, but not with so well-grounded a hope of its success. When the tumour has involved to much extent the cellular tissue of the groin, and the accompanying inflammation is great, it will be well, by local or general bleeding, rest, cooling lotions, and mild aperients, to mitigate at least the inflammation before the blister, &c. is resorted to. Indeed, in the employment of this method, we are not to lose sight of those other means of known efficacy which the established practice of surgery indicates. Frictions of mercurial ointment, with or without the iodide of potassium, may be rubbed upon the base of the tumour at the same time, or the sore left by the separation of the eschar dressed with an ointment of this character.

Caustics to be employed.

224. Other caustics may be employed to form an eschar on the surface denuded by the blister, such as the sulphate of copper, in the proportion of two drachms to the ounce of water, the nitrate of silver, the chloride of zinc, or tincture of iodine. These, however, are not preferable to the bichloride of mercury.[1]

[1] Dr. Wallace resorts to a similar mode of practice in the treatment of indolent buboes; this consists in "the vesication of the surface of the

225. When a bubo has suppurated, this method may be still employed with success if the skin covering the abscess is thick; at this period it very commonly succeeds in dispersing the bubo without having recourse to the knife, &c. If the integuments are thin and the collection of pus on the point of discharging itself, it ought not to be used.

Objections. 226. The objections to the use of this plan are the pain the application of the caustic occasions, which, however, is of short duration, and the cicatrix which the healing of the sore, after the eschar has separated, leaves behind. Both these evils, however, are trivial when compared with the inconvenience experienced from a bubo which has been allowed to suppurate.[1]

227. M. Ricord thinks that this method, however certain in its operation, should be used only in cases of bubo succeeding to chancre, and which may be presumed of a virulent character. He is of this opinion, because the buboes which succeed to excoriations upon the genitals not of a specific character, or to gonorrhœa, or which are d'emblée, have very little tendency to suppurate, and hence the inconvenience and pain of the process may be spared. In these cases M. Ricord prefers pressure with discutient plasters or lotions; compresses soaked in solutions of the acetate of lead, or muriate of ammonia,[2] or plasters of belladonna, lead, iodine, or mer-

tumour with the nitrate of silver, if there be not much increase of heat in the part."

[1] See the remarks by Cullerier, on the employment of this method, in Lucas Championnière, Thérapeutique de la Syphilis, p. 356 et suivantes; also by M. Ricord, pp. 582-4.

[2] ℞. Plumbi acetat., ℈ij.
Aquæ, ℥xvj. M. (Ricord.)
This is the "eau blanche" of the French hospitals.

℞. Ammon. muriat., ℥ij.
Acidi acetic.
Sp. vini, āā ℥ij.
Ext. belladonnæ, ℥j.
Aquæ rosæ, ℥xiv. M.

cury.[1] When much pain and tenderness exist, bleeding becomes necessary, with the application of strong aqueous solutions of opium.

228. In the treatment of indolent bubo, in the commencement, M. Ricord has recourse to the discutient plasters with compression in the day time, and friction with the iodide of potassium, or mercurial ointment, in the evening, covering the part during the night with a poultice. If this has not a marked effect upon the enlargement in a few days, blisters with the bichloride of mercury on Malapert's plan are employed. Frictions with ointments composed of the iodide of mercury,[2] or compresses soaked in a dilute tincture of iodine[3], are also very useful in the resolution of the chronic or indolent bubo. Indolent bubo.

229. The disease may terminate in two ways: the enlarged glands may pass on slowly to suppuration, or assume a form of induration of a scirrhous or scrofulous character. In the latter form, frictions with croton oil, the tincture of iodine, Terminations.

[1] For this purpose may be employed the "Emp. Ammoniac, c. Hydrargyro" of the London Pharmacopœia, the Emp. de Vigo of which I have already given the form, p. 72;

or,

℞. Emp. belladonnæ, pts. 8.
Plumbi iodidi, pt. 1. M.

℞. Emp. "de Vigo" c. mercurio, pts. 4.
Extract. belladonnæ, pt. 1. M. (Dupuytren.)

℞. Emp. Belladonnæ, ℥iv.
Iodinii, ʒj. M.

℞. Emp. hydrargyri, ℥iv.
Iodinii, ʒj. M.

[2] ℞. Hydrargyri iodidi, ℈j.
Adipi, ℥j. M. ft. unguent.

[3] ℞. Tinct. iodinii, ℥j.
Aquæ destillat. ℥ij. M. ft. lotio.

or the emp. belladonnæ with tartar emetic, may be used as local applications. Small issues may also be formed over the indurations by means of the caustic potash, or if the disease assume a purely scirrhous character, extirpation may become necessary. The progress, complication, and termination of bubo will depend very materially upon the constitution of the patient, and the condition of his general health; hence, the latter demands the strictest attention on the part of the practitioner. The organs of digestion, and the state of the viscera of the chest, and abdomen, should be carefully attended to; we must, to the utmost of our power, take care that no complication on the part of the latter organs interfere with the local disease, and endeavour by appropriate treatment to combat any general cachectic state that may be in existence, and which may not only prevent the resolution of the tumour in the groin, but favour the extension of disease to other parts of the glandular system. For these purposes an antiphlogistic treatment may be necessary on the one hand, whilst, on the other, the internal exhibition of mercury, iodine, or sarsaparilla may be useful, either simply or in any of the forms of combination which have been previously indicated.

Treatment when fluctuation is evident.

230. When fluctuation is evident, more particularly if the skin covering the tumour be thin, it will generally be useless to lose time in attempting longer the resolution of the tumour. It will, as a general principle, be better to open it at once, either with the scalpel or the knife. Dr. Wallace believes that buboes in their stage of suppuration may be resolved by mercury if it has not been used earlier in the disease; and M. Reynaud has succeeded in dispersing them by the blister with caustics. These remedies are, however, to say the least, uncertain at this period, and we are more likely to save time, and our patient's constitution, by opening the bubo at once.

231. The bubo may have suppurated freely, and the collection of matter be large, and the surrounding tissue little indurated, or there may be much surrounding induration, and the collection of matter small and deep seated. In all cases the best general rule of practice is to open the bubo as soon

as fluctuation is evident.[1] "When it is deemed prudent to do this before the process of ulceration has ceased, or, in other words, where pus exists only in the centre of the tumour, and whilst this purulent matter is still surrounded by a morbid texture passing into the state of liquefaction, it will be indispensable to make our incision proportioned, both in its depth and extent, to the size of the tumour; for unless it be made deep, we may not reach the purulent focus;[2] and unless it be made extensive, or through such parts as are in progress to suppuration, we shall not stop this process; and before it is completed the opening we have made may close up from tumefaction, and the patient be thus exposed to the necessity of a fresh operation, or else to wait the discharge of the matter by the natural actions of the part. Whereas, if we make an incision sufficiently extensive, we shall not only avoid these evils, but also diminish very considerably the extent of the disease. In fact, incision into a bubo, when in the state of incipient suppuration, will in general as effectually put a stop to its progress as it will to that of anthrax when in an analogous state. I would even say further, that we may perhaps uniformly stop the increase of bubo by a sufficiently free incision in its first, second, or third stage, i. e. before matter is formed." [3]

Blue colour of the integuments.

232. When the integuments covering a bubo are of a deep blue colour, more or less disorganized, or threatening gangrene, it is better to open the abscess with the potassa fusa, or some other caustic, than by simple incision. Where it is impossible to save the integuments, from their thinness and the degree of disorganization which they have undergone, Desruelles and Wallace prefer opening the abscess with caustic; the surface of the skin is to be destroyed by the potassa fusa, or other appropriate escharotic to the proposed extent, and the next day a

[1] See the principles inculcated by Ricord, p. 595, and by Dr. Wallace, pp. 360-1.

[2] Ces bubons—véritables puits artésiens. (Ricord.)

[3] Wallace, op. cit. p. 361.

puncture made with the lancet in the centre of the slough thus formed. Where, however, it is probable that the integuments may be saved, the nitrate of silver is to be rubbed "on the surface of the bubo, and of the surrounding diseased skin, previously moistened with tepid water, until the cuticle is rendered of a blueish colour to the extent of an inch beyond the diseased integuments covering the tumour." On the following day a puncture is to be made in the thinnest part of the integuments, and a compress and roller are to be applied. When the surface of the cuticle has become dry after the first application of the caustic, it may be reapplied over the integuments as before. This local treatment recommended by Dr. Wallace almost universally succeeds in causing the sides of abscess to agglutinate and the external wound to heal.[1]

Ulcerated bubo.

233. The open or ulcerated bubo may assume many morbid conditions which prevent its cicatrization. In the first place, the inflammation which sympathy, or the absorption of the venereal poison, has occasioned in the glands of the groin, and which has terminated in suppuration, may continue to be violent after the pus has been evacuated; and hence, one obstacle to the cicatrization of the ulcer is a degree of inflammation in the part itself. This undue excitement results either from a continuance of the original inflammation, kept up by exercise of the diseased part, by too nourishing a diet or other causes, or from the imprudent and too early local application of stimulating dressings. In this form of the disease the patient will derive benefit from repose, low diet, gentle aperients, local bleeding, anodyne fomentations, and the application of compresses soaked in an aqueous solution of opium. The opiate, or simple cerates, are the most appropriate dressings; and these may be assisted by gentle pressure, by means of compresses and a roller methodically applied.

Sloughing bubo.

234. Again, the surface of the open bubo is commonly covered with a thick slough, the ulcer itself is indolent, or

[1] Wallace, pp. 377-8.

disposed to spread, and its edges are red, angry, and elevated. This is the most ordinary condition of the true virulent bubo: and all that has been said on the ulcerating stage of chancres is applicable here. It becomes necessary, in these states, to destroy the diseased surface of the sore by means of caustics; and for this purpose the nitrate of silver, the mineral acids, the acid nitrate of mercury, or the powder of cantharides may be employed; the latter remedy is largely employed by Ricord. The dressings best suited to this form of bubo are Ricord's aromatic wine, with or without opium or tannin; this, as in the case of chancre, may be alternated with some digestive ointment,[1] solutions of the sulphate of copper or zinc, or a weak solution of the chlorides of lime or soda. Creosote is also very useful as a local application, more or less diluted.

Chronic indolent bubo.

235. In chronic open indolent bubo, with a foul surface, where most remedies have failed in modifying the condition of the sore, M. Cullerier employs occasionally, as a caustic, three, four, or five grains of the bichloride of mercury dusted over the surface of the sore, and suffered to remain for some hours. The application of the remedy is followed by severe pain, and inflammation, but generally succeeds in producing a healthy condition of the sore, speedily followed by complete cicatrization.[2]

236. The alternate applications of leeches and digestive ointments are exceeding efficacious in the treatment of ulcerated bubo. Desruelles states that he generally succeeds in healing these ulcers, in thirty or thirty-five days, by applying from four to six leeches every three or four days, and

[1] The reader will find the particular forms for the preparation of these remedies, in the previous pages of this work, under the article Primary Venereal Sores.

[2] This practice originated with Dr. Ordinaire. He first employed it in the treatment of cancerous or foul sores of the rectum, nose, and other parts. The results of the method were so favorable, that Cullerier tried it at the Hôpital des Vénériennes in the treatment of foul indolent bubo. It has in many cases exceeded his most sanguine expectations.

dressings in the intervals with compresses soaked in a solution of opium. The indications, however, of all local applications are to be sought for in the condition of the sore; they require constantly to be changed; what is useful to-day may be injurious to-morrow.

Condition of the integument at the edges of the ulcer.

237. A formidable obstacle to the cicatrization of an open bubo is occasionally presented by the edges of the sore itself. The integuments covering the cavity have lost part of their vitality, they are more or less discoloured, indolent, or indurated, and offer no disposition to adhere to the under surface of the sore, or to throw up granulations by which the ulcer might be filled. In this condition they offer a permanent obstacle to cicatrization, and it becomes necessary to adopt means to bring about their union with the subjacent parts, or else to remove them altogether by the knife, scissors, or caustic. To accomplish the first intention, the under surface of the integuments may be rubbed with the sulphate of copper, the nitrate of silver, or some other caustic, the cavity of the ulcer filled with soft lint, covered with some dressing suited to the condition of the sore, and a bandage and compress applied.

Removal of portions of integument.

238. When it becomes necessary to remove the floating portions of integument, caustics or the knife may be used, but this operation must not be performed on a truly venereal bubo in a state of ulceration, inflammation, or great irritability. These conditions must be subdued before such an operation is thought of. The late Dr. Wallace thought that the removal of the diseased integuments covering an open bubo might in most instances be prevented "by the vesication of the diseased integuments, and also of the sound skin for a little way beyond them by means of the nitrate of silver." The application of the caustic is to be renewed every four or five days, or as often as the surface of the integuments to which it might have been applied becomes covered by a new cuticle. It will also be useful to apply it occasionally to the whole ulcerating surface, and to the orifices of any fistulous openings that may exist,

not with a view of destroying exuberant granulations, but to excite the granulating surface to more healthy actions.[1]

239. Dr. Wallace states that he has known loose portions of integument of several inches in diameter, which were so diseased in their structure that they lay on the surface of the ulcer like a dead flap, saved by this process. "I have also," continues this author, "accomplished the cicatrization of other ulcerations, which presented numerous fistulous openings or detached flaps, and in which all the ordinary means, such as injections, compresses, incisions, &c. had all been employed in vain. In short, I can most confidently recommend this treatment of indolent and atonic ulceration, &c. as well as that of abscesses of the same class, as a very great improvement in the general practice of surgery.

Internal surface of open bubo.

240. The internal surface of the open bubo is rarely smooth, uniform, or continuous; it is generally uneven and irregular, frequently divided into compartments, or presenting numerous orifices which are the openings to other glands, which have suppurated, and thus open by small orifices into the chief or general cavity, which is very commonly an abscess in the cellular tissue surrounding the gland or glands, which have been originally the seat of irritation. It is this pathologic condition of open bubo which renders the treatment so difficult and tedious.

Treatment of sinuses.

241. Injections may be employed in the treatment of these fistulous openings with a view of modifying the condition of their surfaces, and disposing them to cicatrize. Solutions of the sulphate of copper, the nitrate of silver, the sulphate of zinc, or bichloride of mercury[2] may be thus employed.

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[1] See Wallace, op. cit. p. 381.

[2] ℞. Cupri sulph. gr. vj.
Aquæ dest., ℥j. M.
℞. Argent. nit., gr. vj.
Aquæ, ℥j. M.
℞. Zinci sulph., gr. x.
Aquæ, ℥j. M.
℞. Hyd. bichlorid., gr. j.
Aquæ, ℥j. M.

242. If local bleedings, appropriate dressings, and compression fail in the treatment of these fistulæ or sinuses, it may be necessary to lay them open with the knife. Sometimes the enlargement of the orifice is sufficient, or it may be necessary to divide them in their whole length, or if the situation of the sinus permit, a counter-opening will generally answer all the purposes of complete incision, a practice attended with much terror and pain to the patient. Cullerier speaks highly of counter-openings made with the caustic potash; the caustic as well as the opening may contribute to the cure in these cases. The fistulæ may likewise be cauterized internally by means of solid nitrate of silver, or a small portion of the powdered bichloride of mercury introduced by means of a grooved director: this practice is painful, but generally successful in its results. Lastly, the whole external skin, corresponding to the sinuses, may be vesicated with the nitrate of silver, in the manner recommended for the treatment of loose portions of integument.

Iodine in chronic ulcerated bubo.

243. The internal use of iodine alone or combined with potass or mercury, is of great service in the treatment of chronic ulcerated bubo. To the consideration of the employment of this remedy I shall return when treating of the constitutional forms of syphilis.

Causes which favour the occurrence of bubo.

244. Many causes will predispose a patient with a primary venereal sore to the occurrence of bubo, Amongst these may be mentioned a bad habit of body at the time of contracting the infection, a previous disposition to glandular enlargements, a scrofulous constitution or taint, full or high living, with errors or irregularities in diet; such predisposing causes may be termed general. There are others which we may denominate special, such are the long continuance of the primary ulcer in an indolent or ulcerating condition, the use of stimulating or irritating dressings, much exercise either on horseback or foot, and the absence of the suspensory bandage.

It is of vast importance to prevent the suppuration of a bubo, since matter once formed and evacuated is often succeeded by sinuses and troublesome ulcers, which are exceed-

ingly tedious and difficult to cure. In hospital practice we can commonly succeed in dispersing a bubo, because we can make the patient do as we choose; but in private practice, where concealment is necessary, it becomes a more serious matter.

Premonitory symptoms and their treatment.

245. When, as a consequence of a primary venereal ulcer not yet healed, or just healed, we perceive enlargement with tenderness in the groin producing stiffness when the patient walks, we may be sure that a bubo is about to form. I would not recommend the old-fashioned practice of applying leeches; it is a practice generally very unsatisfactory, rendering the cure long, uncertain, and tedious; we must insist upon a strict regimen on the part of the patient, and absolute rest, if possible. The part may be smeared thickly over with mercurial ointment, over this a linseed or a bread poultice, cold, and a piece of oiled silk to keep it moist, confining all by a bandage. Pressure may also be made by the emp. ammoniaci c. hydrarg. spread on thick wash leather, the plaster to be placed lengthways parallel to the thigh, and not at right angles with it; this prevents the plaster getting displaced when the patient walks. The best means of all, however, is to paint over the enlarged gland night and morning with a strong solution of iodine and hydriodate of potash.[1]

The effect of this is almost magical. In the intervals of the dressings pressure should be made by a pad and bandage. If the patient has not used mercury for the treatment of the primary sore, the dispersion of the bubo will be hastened by now administering it so as gently to affect the system, always presupposing that the patient is in a condition to bear mercury.

Should these means not succeed (which in a majority of instances they will), and suppuration appears inevitable, it must be hastened by warm poultices and fomentations.

[1] R. Iodinii, ℈j.
Potass. hydriodatis, ℈ij.
Aquæ, ℥j. M.

Treatment when matter has formed.

When matter is ready to be discharged, a question of very great importance suggests itself, viz. how should this be done? Many surgeons open the abscess freely with the bistoury or lancet, whilst some prefer the potassa fusa for this purpose. I would not under ordinary circumstances recommend either of these methods.

How a bubo should be punctured.

246. When a bubo is ready to puncture, I would not advise a free incision; for almost under every circumstance where this is practised, there is a quantity of integument in the edges, which will not unite with the granulating surface of the sore thus produced. By opening an abscess in this way the whole anterior wall of it is destroyed, and the cure must be performed by the cicatrization of a granulating surface which springs from the floor or posterior wall of the abscess. The great object is to evacuate the matter first, then to diminish the disposition to its re-formation, and lastly to procure union of the two sides of the cavity. This may generally be done in the way I have adopted in the treatment of chronic abscesses in the Queen's Hospital, and which has been so successful in a great many instances. When a bubo is ready to be opened, we should not suffer the skin to become too thin, but make several very small punctures over its thinnest part, perhaps six, eight, or ten, through these the matter will ooze out till the cavity of the abscess is empty. Through one of the punctures the point of a very small glass syringe may be introduced, and a very weak solution of the sulphate of zinc injected, in the proportions of two or three grains to the half pint of water. When the abscess is quite empty, place over it a large compress of lint, and use moderately tight pressure by means of a roller. In many instances, if we can keep the patient quiet for twenty-four hours, we get either partial or total adhesion of the sides of the bubo, and a speedy cure will be the result; in other instances this may not be the case, but by the daily use of the injection through one of the punctures, which should be kept open for that purpose, we succeed in a few days, in almost every case, in effecting a cure.

I generally employ for an injection in these cases the weak solution of sulphate of zinc. I have used also a weak solution of iodine and hydriodate of potass.[1] Injections how to be used.

The injections must be varied in strength to suit the feelings of the patient, or a gentle warmth and slight irritation should be experienced, but violent pain on no account produced. Solutions of the sulphate or acetate of copper, alum, port wine with tannin, may all be used; and if one does not succeed quickly we should have recourse to another.

This is the best way of treating a suppurating bubo with which I am acquainted. I hope soon to lay before the profession generally a memoir on the treatment of chronic abscesses, after a similar manner.

After the numerous instances we have seen of foul, extensive, burrowing sores, in the hospital, which have been produced solely by laying buboes freely open, which sores have been for months in existence, we must be quite aware that some improvement is necessary in this branch of surgery. Ulcers, the result of bubo, with thick, hard, cartilaginous edges, have been treated in the hospital by destroying the edges and the surface with the potassa cum calce. Sinuses, resulting from the same cause, have been laid open and their edges destroyed in this way; and in many cases, I may say in all, for I do not know of a failure, the cure, although comparatively tedious, has been satisfactory.

[1] Iodinii, gr. iv.
Potass. hydriodate, gr. viij.
Aquæ, ʒviij.
M. ft. injectio.

CHAPTER XIII.

OF CONSTITUTIONAL OR SECONDARY SYPHILIS.[1]

247. I NOW pass to the consideration of constitutional or secondary syphilis, consisting of a class of morbid actions which make their appearance in the economy at a shorter or later period after a primary venereal sore upon the genitals or elsewhere; the secondary symptoms not being confined to the organs of generation, but extending to the skin, mucous membranes, or other parts.

The phases of syphilis. Primary, secondary, tertiary.

248. The phases of syphilis have been divided into the primary, the secondary, and the tertiary. The primary symptom or chancre is due to the direct application of the venereal poison by means of sexual intercourse, or inoculation. It is capable of propagation, from one individual to another, by intercourse or inoculation. It is not capable of being transmitted hereditarily; a female having a chancre at the period of parturition may produce in this manner the same disease in her infant. The chancre may be followed by a series of symptoms which are successive or continuous, but not constitutional or secondary; these are new chancres, buboes, or abscesses, &c. of various kinds, these being in their onset purely local, and not dependent upon any affection of the constitution generally.

[1] Syphilis constitutionnelle; accidents secondaires et tertiaires. (Ricord.) Maladies vénériennes consécutives. (Desruelles.)

249. Secondary symptoms are those which make their appearance after the economy has become generally affected by the venereal poison, by absorption from the primary sore, during which process the matter has undergone modifications which, in some measure, change its character. Secondary syphilitic diseases generally appear on the skin, or mucous membranes in the eyes, or the testicles, &c. Constitutional syphilis rarely makes its appearance before the second week after infection, more commonly later, towards the fourth or fifth weeks, or at periods still more remote. Secondary symptoms.

250. When syphilis has continued in the economy for an indefinite period of time, we observe the symptoms which are termed secondary to disappear, or to lose the properties which at first characterized them, whilst others of a different kind succeed, to which has been applied the term of "*tertiary*." The tertiary symptoms appear at an indefinite, and generally very long period, after the primary diseases, and in the greater number of subjects, either after secondary symptoms have disappeared, or whilst these are still manifest in the constitution. The diseases which Ricord terms tertiary are deep-seated diseases of the skin, and affections of the bones, as periostosis, exostosis, caries, necrosis. To these may be added various internal affections, as yet neither well known, or described. M. Ricord has presented to the Royal Academy of Medicine specimens of tubercles of the brain, which he believes to be of syphilitic origin. The tertiary symptoms are not hereditary, under any specific form of venereal affection.[1] The children of persons thus affected are very commonly scrofulous, phthisical, or predisposed to cancerous diseases.

251. All the forms of constitutional syphilis must be preceded by a primary affection, unless the disease be the result

[1] Many of the constitutional forms of disease are capable of propagation by contact or inoculation, and in persons cohabiting as man and wife, a secondary or tertiary symptom existing in one, is very commonly produced in the other, in precisely the same form.

of hereditary taint, they then make their appearance with those symptoms which are generally termed secondary.

Prevention of secondary symptoms.

252. It may be naturally inquired here, whether any treatment of the primary disease can certainly prevent the secondary. This question has also been agitated by Ricord. This author states, that he has not been able to meet with any recorded fact where a primary venereal sore healed in five days, has been followed by secondary symptoms; neither has he ever observed such a circumstance in his own practice. The probability of secondary symptoms is in direct proportion to the duration of the primary disease, the longer this continues the greater is the chance that the constitution may become affeeted; hence, that treatment is the best prophylactic under which the sore most rapidly heals, without induration of its cicatrix.

All persons not equally susceptible

253. All persons are not equally susceptible of a constitutional infection from a primary sore. The risk of secondary symptoms is materially diminished, where the primary sore has been treated by mercury. This fact is admitted by all authors practically conversant with the subject. Those individuals are most likely to suffer from constitutional syphilis whose general health is bad when they contract a primary sore; hence, chronic affections of the skin, stomach, or digestive organs, scrofula, general cachexy, or other diseases general or particular, under which the patient may labour at the time of infection, are to be considered as predisposing causes. Attention to the general health is of the first importance, and the constitution of our patient must most materially modify our treatment.

254. Secondary syphilis, like primary, only becomes formidable by neglect and ill-treatment; it is a principle we should never lose sight of, to commence seriously the treatment of constitutional syphilis the moment it becomes manifest in the economy. There is no contra-indication to the immediate commencement of this treatment; should the constitution be bad, or the patient diseased, it must be modified to suit these circumstances: even the period of gestation is no

bar to the anti-syphilitic treatment. M. Ricord states that he has seen more females miscarry when their disease has been suffered to go on unchecked, than when they have been subjected to an anti-syphilitic treatment, framed with judgment, to suit the circumstances of the case. The same remarks apply to the period of suckling.

255. When constitutional syphilis is complicated, these complications should never be neglected; if they coexist with acute or subacute affections of internal organs, the latter ought first to be attended to; these should be subdued before we commence the anti-syphilitic treatment. When scrofula, affections of the skin, or chronic diseases of internal organs, complicate constitutional syphilis, the anti-syphilitic treatment may be at once commenced, but it must be framed and conducted with much care, that the accompanying affection, of whatever character it may be, may not be aggravated by it. An exclusive, or empirical treatment, cannot be too strongly condemned. It is in these cases that the compounds of iodine and mercury, iodine and iron, and iodine and potass, are commonly so useful.[1] Complications.

256. Whenever any of the forms of constitutional syphilis are accompanied by fever, or much inflammation, a strict antiphlogistic treatment and regimen are absolutely necessary. Without a rigorous observance of this rule we can have no rational hope of success. Whatever be the character of the constitutional symptoms, if they are accompanied by local inflammation, or general excitement, a rigorous antiphlogistic regimen and treatment ought to be followed till the vascular excitement is subdued. An antiphlogistic treatment is not to be adopted where these phenomena are absent, and of course its employment as a general measure is to be severely condemned, for in many cachectic or scrofulous patients, or those General treatment.

[1] See the whole of the excellent remarks of M. Ricord on Complicated Constitutional Syphilis, op. cit. pp. 615-18.

"En un mot, l'accident le plus saillant, l'épiphénomène, quel qu'il soit, est celui qu'il faut d'abord combattre, sans negliger aucun des élémens qui peuvent fournir aux indications thérapeutiques."

whose constitutions are already undermined by chronic disease, an opposite plan of treatment becomes necessary. In the latter instances, a full, nutritious diet, is essential to the success of the treatment. The practice of the Hospital has taught us that debilitated and scrofulous patients, who have been badly fed, quickly recover their general health, and are cured of syphilis under the full diet of the hospital; whilst those whose circumstances have enabled them to live well, frequently become cachectic under the hospital regulations; their syphilitic affections remain stationary, and they only recover their health, and lose their disease, in returning to the habits of living to which they have been accustomed.

257. That the internal treatment adopted against any particular form of constitutional syphilis may have every chance of success, it is also necessary that the stomach and bowels be kept entirely free from all irritation or disease.

CHAPTER XIV.

OF THE SYPHILIDA. SYPHILITIC DISEASES OF THE SKIN.

258. SYPHILITIC diseases of the skin may be referred to eight principal groups: 1, Exanthemata; 2, Squamæ; 3, Vesiculæ; 4, Pustulæ; 5, Papulæ; 6, Tubercula; 7, Ulcers of various kinds and in various situations; many the consequences or necessary result of many of the preceding forms; and 8, Vegetations, warts, condylomata, or mucous tubercles.

OF THE SYPHILITIC EXANTHEMATA.[1]

259. The syphilitic exanthemata generally make their appearance under the form of irregular patches, of a shining copper or bronze colour, at the onset of the disease; if there be much accompanying fever they are more inclined to redness, and the bronze or copper colour is not marked till the inflammation and fever have disappeared. Occasionally this form of disease commences in red patches, spread more or less extensively over the body; these patches vary in dimensions from the size of a sixpence to that of a shilling, they are not elevated and solid like the papulæ, and have no apex or centre containing either lymph or pus. They are commonly accompanied by fever, and but for the coexistence or immediate precedence of primary sores might be mistaken for an eruption dependent

[1] *Synonyms and Varieties.* Roseola Syphilitica, and papulous erythema: (Cazenave on the Syphilida. p. 226.)

upon other causes. They very commonly appear before the primary symptoms have disappeared. When they are dying the top is commonly covered with a thin dry scurf or scale. They are sometimes accompanied by papulæ and other forms of constitutional syphilis, as "Iritis," and superficial redness or ulceration of the fauces, and are frequently succeeded by the squamous or tuberculous forms of disease. These eruptions frequently accompany the primary forms of syphilis.

260. They demand, in the first instance, if there be much symptomatic fever, an antiphlogistic treatment, and the warm bath; afterwards, if they are rebellious, the iodide, biniodide, or bichloride of mercury with sudorifics may be employed with the mercurial vapour-bath. The syrup of Larrey is used by Biett as one of the most efficacious remedies in this form of the syphilida, alone, or given in some decoction of the woods. Ricord's favorite decoction of Feltz may be here employed.[1]

OF THE SYPHILITIC SQUAMÆ.

261. The squamæ are particles of thickened epidermis, become hard, dull, and opake, and elevated above the surrounding skin by a morbid condition of the subjacent dermis, or simply, of the rete mucosum. This disease is essentially chronic, and does not generally succeed to any febrile condition of the economy. The syphilitic squamæ generally appear

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[1] THE DECOCTION OF FELTZ.

℞ Rad. sarsaparillæ, ℥iij.
Gummi acaciæ, ℥ss.
Antimonii sulphuret. ℥iv.

The sarsaparilla is to be boiled in six pints of water, over a slow fire, till it is reduced to one half. The sulphuret of antimony is to be wrapped in a piece of linen, and suspended in the middle of the decoction, without touching the sides of the vessel. M. Ricord prefers this to the other decoctions of the woods.

in the form of patches, more or less diffused, varying from the size of a sixpence to that of a half-crown; the centre of these patches is frequently depressed, they are of a red copper colour, changing ultimately to a dull brown, or even black, which is a long time in disappearing.

262. The syphilitic squamæ have a tendency to excoriate, or ulcerate slightly in the centre, which then becomes covered by a small, dry, thick crust; occasionally, also, their surface is traversed by fissures, when there does not exist any apparent ulceration. After the cure of the disease, the dermis remains depressed in the parts corresponding to the centre of the squamous patches. The other symptoms of constitutional syphilis, with which the squamæ are commonly associated, are inflammations and ulcerations of the fauces and palate, iritis, pains and diseases of the periosteum and bones.

263. As the syphilitic squamæ are not generally accompanied by vascular excitement or fever, an antiphlogistic treatment is rarely indicated. Sudorifics, as the decoction of sarsaparilla, or the preparations of Zittman or Feltz, with the carbonate of ammonia, and the mercurial vapour-bath are generally successful. The bicyanide or iodide of mercury, or the syrup of Larrey, are the best remedies when mercurials are indicated. The preparations of arsenic are useful in these forms of disease, particularly when they succeed to primary diseases which have been fully treated by mercury. Biett relates a case of this character speedily cured by the liquor arsenicalis, and the arseniate of soda, after the failure of other measures. The iodide of potassium may likewise be used, but to this remedy we shall return in a subsequent section.

OF THE SYPHILITIC VESICULÆ.

264. The vesiculæ are the most rare of all the syphilida. M. Biett has only seen a few examples of it. In one case, well observed, the disease was characterized by vesicles seated

upon an inflamed base, of a deep copper-coloured red; they were indolent, and remained stationary much longer than eruptions of the same character, not having a venereal origin. Some of them shrunk up, and were transformed into gray squamous crusts; others disappeared, but left behind them on the skin where they were situated, a brown mark. They were accompanied by some degree of fever, inflammation of the fauces and palate, and an ulcer of suspicious character. Ultimately, the patient became covered with a pustular syphilitic eruption. I have seen one well-marked case of this disease, in a patient in the Queen's Hospital. The vesicles were seated in clusters on a reddish brown base. They coincided with a pustular eruption on other parts of the body, and a sloughing ulcer of the fauces.

265. The treatment best adapted to these forms of disease, is an antiphlogistic one; the mercurial vapour-bath, and sudorifics. A mercurial course will rarely be required.

OF THE SYPHILITIC PUSTULÆ.

266. The pustulæ are characterized by an elevation of the epidermis, raised by a collection of pus secreted by a circumscribed portion of inflamed skin. The syphilitic pustulæ are frequently complicated with tubercles, and the pustules themselves commonly placed upon a tuberculous base. The pustules are again occasionally associated with papulæ, but are rarely complicated either with squamous, or exanthematous affections. The syphilitic pustulæ frequently ulcerate, and give place to a sore of characteristic appearance, with hard and elevated edges, and a foul surface, secreting a sanious pus. Unlike other pustular diseases of the skin, the syphilitic pustule follows no regular course; they are developed slowly, and remain stationary for a longer or shorter period, frequently for many weeks, or till an appropriate treatment be adopted. They are situated upon a hard raised base, of a deep brown or copper red; this colour is better marked when they have

continued some time, than in the commencement of disease. The syphilitic pustulæ strictly belong to that class of affections which are termed secondary, but are sometimes observed to coexist with a primary venereal sore; they are, under these circumstances, developed upon the skin of the penis, the scrotum, the pubes, or the labia; they are placed upon a red indurated base, soon burst, and change into ulcerations, having all the character of chancres.

267. The syphilitic pustulæ form two distinct groups. The first is composed of pustules termed *psydraciæ*, by Willan; and, by Alibert, miliary syphilitic pustules. They are small, numerous, arranged in groups, and disposed to become confluent; each pustule is placed upon a hard base, of deep red, or copper colour, and resembles an opaque white point, which, when opened, presents a small gray-coloured excavation. These excavations ulcerate slowly, or cicatrize, leaving a depressed cicatrix on the skin, of a copper, or brown colour, or covered with a thin incrustation.

268. To the pustules composing the second group the term phlyzaciæ is applied. Willan has grouped them under the generic appellation of syphilitic ecthyma. The phlyzaceous pustules, or the pustules of syphilitic ecthyma, are formed separately and distinctly upon the skin; not in groups as in the former variety; they are placed upon a hard, thickened, conical base, surrounded by a deep red, brown, or copper-coloured areola. They commonly ulcerate, and are succeeded by sores, with thick, elevated edges, dug out as it were from the surrounding parts; these ulcers secrete an offensive pus, or become covered with thick crusts; they have a tendency to spread, or to remain stationary, and not to cicatrize or assume any healing process, unless an appropriate treatment be resorted to. Sometimes these ulcerations give origin to red, fungous, painful vegetations. The crusts with which they are occasionally covered, are hard, brown, or black, and not yellow, as those which cover the surfaces of broken pustules generally.

269. The rupture of the syphilitic pustule, and the incrus-

tation of the pus upon the sore thus produced, gives rise to a peculiar form of disease, which Alibert has described as the "crustaceous pustular syphilide;" but this, it will be perceived, is not a distinct or separate form of disease, but merely the consequence of the breaking of the pustule, and the drying up of the pus upon the sore, or ulcer, which is thus formed. The affection is now characterized by a very thick, and very hard crust, most frequently of a conical shape, covering an excavated ulcer, possessing all the characters, both on its base and edges, of a venereal sore. These ulcers sometimes penetrate very deeply, destroying the periosteum, and ultimately producing disease in the bones, over which they are situated. They now enter into the class of tertiary symptoms. Should the ulcer heal under the crusts, it leaves behind it a cicatrix of a copper colour, deeply depressed in the skin.

270. The syphilitic pustulæ are amongst the most formidable of the forms of constitutional syphilis, the crusts and ulceration which succeed to the pustules frequently being so extensive as to cover the entire face, or the greater portion of the body. The constitutional disturbance is, in these instances, so great, as frequently to terminate fatally. The records of St. Louis furnish numerous examples of this kind.

271. The treatment of the pustular forms of constitutional syphilis must be varied to suit the period of the disease, and the particular condition of the eruption, and the state of the constitution which accompanies it. In the former, accompanied by much inflammation or irritation, an antiphlogistic treatment is at first to be adopted; low diet, the warm bath, either alone, or medicated with gelatin, or anodynes, as the decoctions of poppy, marsh-mallows, henbane, or opiates. The vapour-bath is also useful, and mercurial fumigations, when the affection is perfectly chronic. At this period, also, mercurials may be given internally; the preparations most useful, are the iodide, the bicyanide, and the syrup of Baron Larrey.

272. When the patient's health is more or less undermined by the pain and irritation of an extensive pustular eruption,

all specific treatment must be abandoned till the general health is improved; he must be put upon the use of mild tonics, and a generous diet, and the pain of the eruption must be allayed by opiates given internally, or applied locally. Opiates are of great use in all diseases of this kind, particularly where the general health is impaired, and much irritation present. Many patients in the wards of St. Louis have recovered from diseases of this character by their use alone.

273. When mercurials fail, as they occasionally will, the iodide of potassium, or the preparations of arsenic may be employed. If the pustules are large, painful, and ulcerated, they should be dressed with aqueous solutions of opium, the opiate cerate, or a lotion of hydrocyanic acid, in the proportions of ten, twelve, or fifteen drops to the ounce of water. When the ulcers are perfectly chronic and indolent, the ointment of the iodide of mercury should be used. Of all remedies in the pustular forms of disease none equal the mercurial vapour bath. I have seen eruptions cured in a few weeks by this, which had for months resisted all the usual remedies.

274. The various local remedies mentioned in the chapter on Primary Sores may be used to the secondary ulcers succeeding pustules according to the aspect they assume. They may be washed with weak solutions of chloride of lime, and then dusted with calomel, or with calomel and opium.

OF THE SYPHILITIC PAPULÆ.

275. The papulæ are small, solid, hard elevations upon the skin, containing neither lymph nor pus, surrounded by a small inflamed areola, having frequently ulcerations at their apices, which then become covered with small, dry incrustations. The syphilitic papulæ are more or less disseminated over the body, arranged in groups, or disposed to be confluent. They are distinguished by their deep red, or copper colour, their tendency to ulcerate, and to form hard incrustations on their surfaces, which, falling off when the ulcer has healed, leave brown, copper-coloured, depressed cicatrices in the skin. The

papulæ are commonly associated with pustules, tubercles, or squamæ; and almost always accompany syphilitic iritis, ulcers of the mouth and fauces, diseases of the bones, or periosteum, nocturnal pains, and other symptoms of confirmed constitutional syphilis. This affection of the skin sometimes accompanies primary symptoms; when it does so, it assumes a more or less acute form, and is attended with some fever.

276. This variety of disease has been termed venereal itch, "scabies venerea," on account of the irritation the papulæ occasion: when they are seated on certain parts of the body. It sometimes attacks the labia, principally on their external surface, the orifice of the vagina, and the clitoris, which parts, on examination, are found covered with small papulæ of a deep red colour, causing an intolerable itching, principally in the night; the eruption sometimes extends to the arms and internal parts of the thighs. Mercurial ointment generally allays the irritation.

277. The practitioner must be careful in his diagnosis of this disease, to distinguish it from the common prurigo, which so frequently distresses pregnant females, which is symptomatic of some uterine affection, or consequent upon suppression of the menstrual discharge.

278. If the papulæ assume an acute, or subacute form, they must be treated, at first, on the antiphlogistic plan, and a regulated diet must be observed. Should they succeed to primary symptoms, which have not been treated by mercury, this remedy may be employed: fumigations have a marked effect in allaying the irritation by which they are accompanied; weak solutions of the bichloride of mercury may likewise be used, to sponge the surface of the skin affected with syphilitic papulæ. The mercurial vapour bath is also of essential service.

OF THE SYPHILITIC TUBERCULA.

279. Syphilitic tubercles of the skin are deep seated, solid, circumscribed elevations, containing neither lymph nor pus, they differ from the papulæ in their size, being much larger, more prominent, and better defined. Syphilitic tubercles are either isolated or grouped, of a shining red, livid, or brown colour, surrounded by an areola of a dark red or coppery appearance. These tubercles are prone to become ulcerated, and form excavated sores with thick and elevated edges, and a foul surface, secreting an offensive pus, which, drying up, is transformed into gray or dark coloured scabs or crusts. The syphilitic tubercle forms the link of connexion between the secondary and tertiary symptoms of M. Ricord; it is the first of that class of syphilitic diseases, in which the virus appears to have penetrated more deeply into the economy, and to have produced a disorganization in tissues, which those forms hitherto considered have left untouched.

280. The flat tubercle of M. Cullerier, or the tuberculous pustule of Alibert, sometimes occurs as a primitive affection, but more commonly as a symptom of constitutional syphilis; in the former instance it is observed on the scrotum, the labia, the vicinity of the anus, or the mammæ. The surface of these tubercles is smooth and flat, of a deep red or copper colour, varying from the size of a sixpence to that of a shilling; they are not so much disposed to ulcerate as the other varieties.

281. The more common forms of tubercle are conical, or round elevations, dispersed here and there over the skin, or assembled in groups or clusters, which are also irregularly distributed. The size of these varies from that of a pea to that of a large hazel nut, or filbert; they are more commonly situated on the anterior surface of the chest, or the abdomen, on the neck, or the internal part of the arms.

282. Another variety of tubercle is situated, more commonly, on the alæ or lobule of the nose, or on the forehead; frequently, also, upon the neck of the uterus, or upon the

tongue, where they may be mistaken for cancerous affections. These tubercles are commonly assembled in circular groups of variable size; they are so prone to ulcerate, that this termination appears to be one of their natural characters; when in this condition, they are frequently described under the name of syphilitic lupus. The tubercular syphilida are commonly complicated with a scrofulous, scorbutic, or herpetic tendency, or diathesis; their progress is slow, and generally without pain; they gradually increase in size till they terminate in softening or ulceration. They are the most formidable of all the forms of constitutional syphilis, producing great deformity in all the parts invaded by ulceration, and exceedingly difficult to cure.

283. Whilst the tubercles are in a state of induration, and as yet neither ulcerated or softened, their resolution may be attempted. For this purpose, the iodide of mercury, with the iodide of potassium may be employed; it must be remembered, however, before any plan of treatment is framed, that due attention be paid to the general health of the patient.

284. If there be no contra-indication, the treatment is commenced by administering a pill of the iodide of mercury daily, containing one grain of the salt combined with conium, or opium,[1] and the solution of the iodide of potassium,[2] at first administered in doses of ten grains in the day. On the fifth day, two pills are given, and the quantity of the iodide of potassium is increased; it is generally unnecessary to carry the dose of mercury to any extent, or to continue its use very long; the treatment is to be completed by the iodide of potassium. The indurated tubercle is commonly resolved by this treatment, leaving behind it, in the skin, merely a depression of a brown or copper colour, more or less deep.

285. The mercurial vapour bath is also exceedingly useful,

[1] R. Hyd. iodidi, gr. j.
Ext. conii, gr. v. vel,
Pulv. opii, gr. ss. M. ft. pil. o. n. sumend.

[2] See the chapter on the use of Iodine and its Preparations, in Constitutional Syphilis.

whilst the tubercles are yet unsoftened, in procuring their resolution; it may be employed with the iodide of potassium, and sarsaparilla.

286. As syphilitic tubercles are accompanied by a process of inflammation, under the increase of which they soften and ulcerate, a local treatment, whilst they are in a state of induration, is of vast service in assisting the internal treatment in their resolution. For this purpose, cooling lotions may be employed, or fomentations of poppy, or henbane, aqueous solutions of opium, poultices, and leeches applied at a little distance from the base of the tubercle.

287. When the inflammation is subdued, and the tubercles are indolent, folds of linen soaked in a weak solution of the bichloride,[1] or frictions with mercurial honey,[2] or the ointment of the iodide should be used. They may also be sponged with a lotion composed of the solution of chloride of lime, and afterwards rubbed with an ointment made of calomel, or calomel and opium. Ricord gives one golden rule here, which, in attempting to resolve the tubercular syphilide, we should bear constantly in mind: that, as long as inflammation exists, a local antiphlogistic treatment should be pursued, whatever, according to the constitution of the patient, the internal treatment may be. The local applications above indicated are only to be employed in a perfectly indolent condition of the disease.

288. In the ulcerated forms of tubercles, all that has been said on the treatment of primary venereal sores may be referred to with advantage, since these secondary ulcerations require nearly the same local treatment,—the use of the nitrate of silver, the aromatic wine, with astringents, sedatives, narcotics, or digestive ointments, or a local antiphlogistic treat-

[1] ℞. Decocti altheæ officinalis, O j.
Hydrargyri bichlorid. gr. xviij. M. (Biett.)

[2] MERCURIAL HONEY.

℞. Hydrargyri chlorid. 3 j.
Mellis opt. ℥ j. M.

ment according to the aspect of the sore. When caustics are indicated, the surface of the ulcers may be touched with the acid nitrate of mercury: this is a favourite remedy at St. Louis, and the ulcers cicatrize rapidly under its application; the separation of the crusts or eschars may be facilitated by the warm or mercurial vapour bath.

289. The iodide of potassium is the favorite remedy with M. Ricord during the ulcerated stages of tubercle; mercurials also may be used, particularly if the primary disease have not been treated by mercury; the iodide, the bicyanide, or the syrup of Larrey are the best remedies. The decoctions of Feltz or Zittman, the liquor arisenicalis or the arseniate of soda are also remedies which, in particular cases, may be employed with advantage. If the disease do not appear to amend under the use of one remedy, another should be resorted to, and in this manner it will sometimes be found necessary to try several before one is discovered suited to the constitution of the patient. Sometimes the preparations of arsenic succeed when all the rest have failed, occasionally one form of mercurial when another has been unsuccessful. There are cases, happily rare ones, in which all medicines appear useless: it is better, under these circumstances, to omit them altogether for a time, to remove the patient to a fresh atmosphere, to watch his general health carefully, and then again to resume the treatment, after the lapse of a longer or shorter period.

CHAPTER XV.

CONSTITUTIONAL SYPHILITIC ULCERATION OF MUCOUS MEMBRANES.

290. SECONDARY or constitutional syphilitic ulcerations of mucous membranes are extremely common. They may be seated in all parts of the mouth, upon the tonsils, on the posterior part of the pharynx, in all parts of the nasal fossæ, at the orifice of the glottis, and even in the larynx itself.

Syphilitic affections of the mouth.

291. The mouth is frequently the seat of superficial ulcerations, sometimes seated upon the tongue, upon the pillars of the fauces, the inner surface of the lips, and other parts. Sometimes these ulcerations resemble ordinary aphthæ, again there is a distinct loss of substance surrounded by an inflamed margin, and, at other times, it appears as though a pencil dipped in a strong solution of nitrate of silver had been drawn over the tongue. These ulcerations generally, if not always, occur in persons who have taken mercury for the cure of some venereal symptom. They are not under the control of any specific treatment, but generally improve under a regulated diet, general treatment, and frequent gargles, more particularly those in which tannin forms an ingredient.[1] In most instances they are extremely difficult to cure; and are almost invariably rendered worse by mercury.

[1] ℞. Tannin, ℈j.
Spiritus vini Gallici, ʒij.
Aqua rosæ, ʒvj. M. ft. gargarisma.

℞. Tincturæ myrrh, ʒj.
Mellis cuprati, ʒss. M.

The ulcers to be touched with this liniment night and morning.

Syphilitic affections of the throat.

292. The syphilitic ulcers of the throat, pharynx, and fauces, appear under several forms.

1st. The deep excavated ulcer of the tonsil, covered with an ash-coloured slough, and surrounded by a deep, livid, red condition of the mucous membrane. This ulcer, though generally seated between the pillars of the fauces, is sometimes seen on the uvula. This is the true venereal sore throat of Hunter, and English surgeons generally; and, unless the remedy be specially contra-indicated, requires a full mercurial course for its cure. It may occur with other symptoms of constitutional syphilis, and very frequently is found to be associated with persistent induration of the cicatrix of a recently-healed chancre.

2d. Creeping superficial ulcers, found on the uvula, fauces, and pharynx.

3d. Sloughing ulcers extending rapidly down the fauces, covered with white tenacious sloughs. These may extend over the whole of the pharynx; they resemble precisely phagedæna in other parts.

4th. Deep, livid redness of the arch of the palate, fauces, and throat, occurring with various forms of the syphilida, or soon after the healing of a primary sore. These ulcers, &c. may occur with or without different forms of cutaneous eruption, pains in the head and limbs, loss of hair, and other forms of constitutional infection: also with the most varied conditions of the general health.

The treatment of the venereal ulcers of the throat resolves itself into local and constitutional. To the first variety local treatment is hardly beneficial, and against it, unless specially contra-indicated, as I have already said, a full mercurial course should be directed, the best mode being by inunction, employing at the same time the mercurial vapour-bath.

Local treatment.

293. Local treatment of all the other forms is very important. The ulcers should from time to time be pencilled over with one of the liquid caustics already recommended in the treatment of the primary ulcer; such as the acid nitrate of mercury, the acid nitrate of silver, or nitric acid. In the

intervals of these applications gargles of various kinds are very useful. I have found the oxymel æruginis one of the best of these.[1] With this local treatment, should be associated whatever constitutional treatment the nature of the case may point out, and here so various are the conditions that it is impossible to lay down any fixed rules. Should mercury be used, and how? This will depend upon the nature of the primary sore; upon the state of the cicatrix; the form of the cutaneous eruption, if any be present; the condition of the general health; and the previous treatment. Should there be a scaly eruption, an indurated cicatrix, and tolerably good health, mercury may be fully employed with a reasonable hope of success, according to the general principles inculcated in this work. It may also be employed as an alterative, under the form of the iodide, should its full employ be contra-indicated, and other treatments fail.

294. Where mercury is contra-indicated, I would mention as remedies likely to be of service;—the mercurial vapour-bath, the cold infusion of sarsaparilla in lime water, and full doses of opium; with the mineral acids, guaiacum, or the hydriodate of potass.

[1] R. Oxymel æruginis, ʒij.
Aquæ fontanæ, ʒvj. M. ft. gargarisma.

CHAPTER XVI.

OF SYPHILITIC DISEASES OF THE NOSTRILS AND NASAL FOSSÆ.

295. PRIMARY venereal sores may unquestionably be produced in the nostrils by the direct application of the virus; these instances are, however, rare, and must be the result of accidental inoculation by means of the instruments, sponges, or linen used to cleanse sores on other parts. Constitutional or secondary syphilitic affections of the nostrils, are by no means uncommon. They generally appear under one of the following forms. In the first they are characterized by chronic inflammation of the pituitary membrane, with an alteration in the character of its secretions, the latter being offensive, profuse, and commonly tinged with blood. In the second form, we find ulcerations of varied character and appearance; and again, discharges of vast quantities of hard, discoloured, and offensive crusts, seemingly of dried mucus, without any alteration in the appearance of the mucous membrane of the nostrils, at least so far as this can be seen, though these discharges may probably depend on chronic inflammation of the membrane lining the upper meati of the nose. In the latter form there is also a marked alteration in the character of the voice.

Symptoms. 296. These diseases often commence with the symptoms of ordinary cold; the nose is dry and uncomfortable, and the voice slightly hoarse; the symptoms, however, do not yield to ordinary treatment, and to this dryness ultimately succeeds discharge of fetid muco-pus, and blood, and hard crusts of inspissated mucus, or ulceration.

297. In some instances these symptoms connected with the nose are the only ones that mark a constitutional syphilitic taint, at other times various other symptoms are present.

Case. C. H., aged 34, was admitted under my care into the Queen's Hospital, in May 1843. His symptoms consisted in the discharge from the nostrils of very large dry crusts of inspissated mucus, having something the shape of portions of the spongy bones of the nose. The mucous membrane of the nose, generally, was dry and tumid, and the voice hoarse and unpleasant. He had some suspicious copper-coloured blotches on different parts of the body, and admitted that, a short time before, he had had sores upon the genitals, but nothing specific could be collected as to the manner in which the primary disease had been treated. He was ordered the iodide of mercury in half-grain doses, which was continued for some weeks, tenderness of the gums being produced and kept up. He also injected the black wash into the nostrils several times a day. The treatment was completely successful.

This is a good example of the commencement of that form of syphilitic disease of the nostrils which ultimately terminates in disease and destruction of the spongy and proper bones of the nose.

CHAPTER XVII.

OF SYPHILITIC ULCERATION OF THE LARYNX.

298. One of the most formidable varieties of constitutional syphilis is ulceration of the mucous membrane, of the glottis, and larynx. Of this form of disease I have unhappily seen several examples; and modern writers on venereal diseases, more particularly Mr. Carmichael and M. Cazenave have reported others. Syphilitic ulceration of the larynx generally follows or accompanies other similar diseases of the nasal fossæ, throat, or pharynx, or various forms of the syphilida; it does not commonly occur as a solitary symptom of constitutional syphilis, and consequently we are the less likely to be deceived as to its true character.

Symptoms. 299. The symptoms are an alteration in the character of the voice; it becomes hoarse, husky, or totally lost; the patient expectorates a fetid pus, and portions of slough mixed with blood; the thyroid cartilage is sometimes enlarged, and there is considerable tenderness when the larynx is examined with the fingers. In this condition the patient is generally much emaciated, and night perspirations are present. These symptoms closely resemble those of laryngeal phthisis, and even ordinary phthisis pulmonalis; from the former disease syphilitic ulceration of the larynx is to be distinguished by the precedence of primary, or other constitutional symptoms of syphilis, or by the coexistence of the latter. The stethoscope will hardly suffer us to mistake this disease for ordinary pulmonary consumption; indeed the almost invariable existence

of other forms of constitutional syphilis with ulceration of the larynx, will, in most instances, clear up any doubt as to the true nature ef the latter.

J. M'K— was admitted under my care first as a home, and afterwards, as an in-patient of the Queen's Hospital. He had been suffering for two years from a chronic pustulo-crustaceous disease of the skin, and a large ulcer in a sloughy condition occupied the whole of the pharynx. He was much emaciated, had constant cough, expectorated an offensive bloody muco-pus, and could not speak above a whisper. Auscultation detected no disease of the lungs. The constitutional symptoms of syphilis had been preceded by chancres of the glans penis and urethra, the latter of which was not healed. He underwent a variety of treatment with little benefit, and ultimately died of extreme exhaustion. The inner surface of the larynx was destroyed for a great extent by an ulcer, precisely resembling that which occupied the pharynx, and a series of creeping ulcers extended down the urethra nearly to the neck of the bladder. Case.

300. M. Cazenave has recorded some cases of syphilitic ulceration of the larynx cured by the iodide of mercury; in all the cases that I have seen I have found the disease difficult to manage, and very frequently fatal. Mr. Carmichael has experienced the same difficulty, and has proposed to lessen it by performing tracheotomy. "If the ulcer is in the larynx, there can be little hope of inducing it to heal, on account of the constant current of air through this passage, and the frequent motion to which it is subjected, as the chief organ of voice. I have, however, in many instances, passed into it with decided advantage, a long bent probe, or metallic bougie, covered with lint, moistened in a solution of nitrate of silver, of from six to ten grains to the ounce of distilled water. In the act of passing the bougie, thus armed, into the larynx, the patient should be desired to project the tongue as far as possible from the mouth, which prevents the epiglottis from closing the aperture of the larynx, but in the great majority of cases, I must confess that nothing more than mere Treatment frequently of little avail.

temporary alleviation was obtained by this or any other measure I have seen tried, with the exception of tracheotomy. The other measures to which I allude, are mercurial fumigations, mercury internally exhibited, and blisters, moxa, tartar-emetic ointment, caustic issues, and setons to the integuments covering the larynx." [1]

[1] Carmichael's Clinical Lectures on Venereal Diseases, pp. 141-2. Dublin, 1842.

CHAPTER XVIII.

OF SYPHILITIC WARTS, EXCRESCENCES, VEGETATIONS, CONDYLOMATA, OR MUCOUS TUBERCLES.

General description

301. VEGETATIONS, excrescences, or warts of varied form and appearance upon the skin or edges of the mucous membranes, constitute the last variety of syphilitic diseases of the skin. These excrescences appear on the skin or muco-cutaneous surfaces of the male and female organs of generation, both in the primary and secondary forms of syphilis. They are variable in appearance and consistency, sometimes resembling common warts on other parts of the integument, and at others, presenting a surface so fibrous, or granulated, that they have been supposed to resemble the root of the leek or the surface of the raspberry. These fungi, excrescences, warts, or vegetations, by all which names they are indiscriminately known, grow from the surfaces of the skin in the immediate vicinity of the organs of generation, or from the under surface of the prepuce, and from the glans penis in the male; and in the female from the labia majora, the nymphæ, or the entrance of the vagina itself, which they sometimes entirely surround.

Causes.

302. These warts or excrescences arise from several causes. In the first instance, they are commonly produced by the irritation excited by the gonorrhœal discharge on the common integument in the vicinity of the organs of generation, and they are commonly produced by the same discharge on what are termed the muco-cutaneous surfaces of these organs (by the muco-cutaneous surfaces I mean those where the skin and mucous membranes insensibly blend into each other). On the pure mucous surface itself the warts are rare, though they

Situation.

may be sometimes found in the orifice of the urethra, or at the entrance to the vagina, as happened in a recent case, where the orifice of the vagina only was studded with a number of small hard elevations, which were doubtless warts in their incipient state. Warts, then, are caused, in the first instance, by the irritation produced on the common integument, or the muco-cutaneous surfaces of the organs of generation, by the irritation of pure gonorrhœal discharges. They are caused, secondly, by superficial forms of irritations, excoriation, or ulceration of a venereal character, seated on the surfaces to which I have just alluded. These are most common in the male, and are situated on the glans penis itself, more commonly round the corona glandis, or on the under surface of the prepuce, these being properly muco-cutaneous surfaces.

Primary forms.

303. In the third instance, they arise from the surfaces or primary venereal sores themselves, from chancres or ulcers during the period of cicatrization, and most commonly this takes place when venereal ulcers are treated on the simple or non-mercurial plan. In such cases, more particularly when the patient is suffered to follow his customary avocations during the treatment of the primary syphilitic sore, the latter heals slowly and with difficulty, occasionally remaining stationary for many days together, and showing neither disposition to heal or spread, although its surface may be covered with healthy granulations. In such cases, when the sore does not close, instead of skinning over or cicatrizing in the usual manner of an ordinary ulcer, the surface assumes a hardened character and begins to grow or throw up this hardened substance, which ultimately assumes the aspect of a wart or vegetation. In this way is the third variety of venereal excrescences produced.

Constitutional forms.

304. All the varieties of warts that I have as yet described belong to the different forms of primary syphilis. Vegetations or warts, however, are commonly met with as symptoms of constitutional syphilis, and they are then termed condylomata. The secondary forms of syphilis, on some occasions, strongly resemble the primary forms; and hence it is, that,

although the varieties of which we have just spoken are produced, like all the other forms of primary syphilis, by the direct application of the venereal poison, they present a striking resemblance to certain excrescences, or fungous growths, commonly denominated condylomata, which result from the contamination of the system. "However, with proper attention, primary condylomata can easily be distinguished from secondary condylomata; for the latter are uniformly accompanied or preceded by other symptoms which point out constitutional disease, and particularly by a very slight scaly or rubeoloid eruption, either with or without a superficial affection of the mucous membrane of the mouth and fauces." [1]

Differential diagnosis.

305. The secondary condylomata are not always accompanied by affections of the skin or throat, but "they appear as a distinct symptom of constitutional syphilis in advanced periods of the disease." It is of the first importance to distinguish between these two varieties:—viz. the primary and constitutional, since the treatment suited to the one is not admissible in the other. The first varieties are generally purely local, and may be cured by local means; the second are constitutional, and require a general treatment for their eradication. In forming our judgment as to their true character, we must be guided by the history of the case, the preceding and accompanying symptoms, and the appearances of the disease itself. "They are not so hard as primary warts; they are more of a fleshy nature, more tender, and more apt to bleed. They have a more uniform surface; and instead of being formed of a number of smaller warts connected together they are composed of one uniform mass. They do not approach so near the verge of the anus as primary warty excrescences generally do, being for the most part of the greatest extent, and most elevated near the tuberosity of the ischium. In some cases they become ulcerated, and discharge a great deal of very offensive matter; for the most part the ulceration which takes

[1] Wallace, pp. 388-9.

place being superficial, and not reaching below the surface. Like the other symptoms of constitutional syphilis, these excrescences either continue in the same state, or become gradually worse, as long as no remedy is employed constitutionally for the cure of the disease.[1]

306. Venereal warts, excrescences, or condylomata, arise on cutaneous, muco-cutaneous, or mucous surfaces, though more rarely on the latter—

1st. From the irritation there produced by purely gonorrhœal discharges.

2d. From superficial ulceration or excoriation of a purely venereal character.

3d. From the cicatrices of excavated ulcers.

4th. As a symptom of constitutional or secondary syphilis; the first three kinds belonging to the different forms of primary syphilis.

"Whatever tends to excite the flow of an unusual quantity of blood to the penis, seems to create a disposition in these parts to the formation of warts. Irritation produced on the prepuce and glans, as we have seen, by a variety of causes, disposes the small blood-vessels of the part to sprout or pullulate, by which these warty excrescences appear to be formed." (Bell, vol. i., p. 414.)

"We have mentioned irritation as a cause of these excrescences, but it is only the slighter kinds of it that seem to produce them. They often succeed to a slight degree of inflammation, but never form on parts highly inflamed; on the contrary, much inflammation destroys the tendency in these parts to the formation of warts, insomuch that our most effectual remedies in the cure of warts, and for preventing a return of them, are such as always excite a good deal of pain and inflammation." (Bell, vol. i., pp. 416, 417.)

[1] B. Bell on Gonorrhœa Virulenta and Lues Venerea, vol. ii, pp. 125, 126, 127.

The secondary forms of condylomata are termed by the French writers *mucous tubercles*, mucous papulæ; they differ in nothing from the description I have already given except in the name.

307. The surface of these fungi or vegetations frequently secretes a puriform discharge, and this discharge has a power of propagating "a disease similar to that which produced it." (Wallace, p. 335.) Contagious character.

In proof of this assertion, I shall bring forward a case which Sir A. Cooper used to relate in his lectures. "A gentleman in Sussex was called to attend a lady in labour; he felt something in the vagina which appeared unintelligible, and on examination found it to be a crop of warts. He delivered her, but did not say anything about the warts to the lady. In conversation with the husband, he told him that his lady had a number of warts. The gentleman stated, that at the time he was married he had a wart on the penis, and he had no doubt that he had communicated them to his wife." (Cooper's Lectures, p. 497.) This case shows that warts occasionally, though the circumstance is rare, spring from a purely mucous surface; it proves also, beyond a doubt, their contagious character.

It is asserted by some authors, though denied by others, that all the varieties of syphilis are infectious; and Dr. Wallace more particularly asserts that each has a disposition to produce its like. "We have a remarkable proof of this assertion in the effects occasionally resulting from the application of matter secreted by these fungi; for although they may have been caused by poison derived from an excavated ulcer, their secretions, as we have seen, will most generally produce vegetations of their own kind." (Wallace, p. 335.)

308. These warts, or primary excrescences, grow in many instances from the epidermis, their attachment being so slight, that on being removed the cutis vera is left entire. In other cases they proceed from the skin itself; they have not been observed to go deeper than this. (Bell, vol. i., p. 413.) Hunter seemed to entertain the idea that generally they are produced from the surface of the cutis vera. This corresponds pretty much with the opinion of Dr. Wallace, who believes that these vegetations have sometimes their origin in Pathology.

the papillary body covering the cutis vera, and sometimes in the rete mucosum itself.

Treatment. 309. We now come to speak of the treatment of vegetations; and here it will be necessary to recollect what has been said with regard to the divisions of these affections into the primary and secondary forms. The primary forms, being generally purely local diseases, are in most instances to be removed by a treatment purely local; the secondary, resulting from a poisoned or infected constitution, as generally require a constitutional or general treatment for their cure.

Of the primary forms 310. The primary forms of warty venereal excrescences are generally to be cured without great difficulty by local applications or means, either by the knife or the application of escharotic or irritating remedies. Hunter says, "They are so little of the true animal, and so much of the disease, that many trifling circumstances will make them decay; an inflammation in the natural and sound parts round the wart will give it a disposition to decay; many stimuli applied to the surface will often make them die. Electricity will produce action in them which they are unable to support; an inflammation is excited round them, and they drop off." (Hunter, p. 268.) These are the principles which are to guide us in the treatment of these forms of disease; the application of remedies which, producing irritation and inflammation in the surrounding integument, dispose the wart, in which the vital actions are very feeble, to drop off. The knife or ligature may be resorted to where the apex of the wart is large, and the base pedunculated or narrow. Where the base is broad, and its attachments to the skin extensive, it is better to trust to the remedies already mentioned, which we shall presently pass in review more particularly. Hunter mentions as escharotic remedies the nitrate of silver and the sulphate of copper; as stimulants, a mixture of equal parts of the acetate of copper and the powder of savine leaves. When the knife or ligature are used, it is always advisable to touch the cut surface with some caustic.

311. In the more ordinary cases these excrescences may generally be removed by bathing them and the contiguous parts several times a day with a strong solution of the muriate of ammonia or the bichloride of mercury.[1] With these applications the warts may be sponged freely several times a day, till as much irritation and inflammation are excited in the surrounding parts as the patient can reasonably bear. In mild and recent cases these remedies will generally accomplish a cure. When the surfaces of the warts are hard, if they are of long standing, or do not yield to the remedies already mentioned, it becomes necessary to employ escharotics and irritants of a more powerful character. When such are used, the parts "should be merely moistened with a pencil dipped in them, nor should this be repeated above once in two or three days." Amongst these stronger preparations are solutions of the argentum vivum in pure nitric acid, one ounce of the former in two ounces of the latter; the tincture of cantharides and the liquor potassæ arsenitis are useful employed in this way. Arsenic was a favourite remedy with Sir R. Cooper in the destruction of warts. He employed an ointment composed of one drachm of the oxide of arsenic (arsenious acid) to one ounce of spermaceti ointment or lard, the surface of the warts to be smeared with it frequently, according to circumstances. Powders which, when dusted over the warts and integument in their neighbourhood, irritate and inflame the latter, are generally more efficacious than solutions of the same substances. Amongst these may be mentioned equal parts of the savine powder and chloride of mercury, savine leaves powdered and corrosive sublimate, and the hydrargyri nitrico-

Local treatment.

[1] Ammoniæ hydrochlor.
Aceti destill.
Aquæ, āā ℥ij. M.

Hydrarg. bichloridi, ℥ss.
Sp. vini, ℥j.
Aquæ, ℥iij. M.

oxydum.[1] We may also use for this purpose equal parts of the dried or burnt alum, and the nitric oxide of mercury. "After these warts have been removed, by local irritants or by the knife, it will be necessary to use some astringent lotion, to restore tone to the capillaries of the diseased surfaces, and to remove any excoriation or catarrh which may have co-existed with the fungous growths." (Wallace, p. 337.)

Use of mercury.

312. We may now inquire whether these vegetations, which are the consequence, as we have seen, of some forms of purely syphilitic diseases, require mercury for their cure, or for the prevention of their return, since in many instances they are very liable to do so. Mercury is unquestionably not required for the removal of the first form of venereal warts which are produced by the irritation of gonorrhœal discharges. Nor do we conceive it can ever be required for the cure and prevention of the second variety, which we have stated to be the result of venereal excoriations. In the treatment of the third variety it is possible that mercury may be occasionally required. The last form of vegetation, which springs from the surface of the excavated ulcer, rarely occurs where mercury has in the first instance been judiciously used for the cure of the primary ulcer. We must bear in mind, then, that a primary venereal ulcer for which mercury is judiciously employed, is less likely "to heal into a wart" than when such remedy has not been employed.

In ordinary and long-standing cases of vegetations which are the result of venereal sores, mercury will not be required, and we must in most instances trust to local remedies only. Hunter and Bell express themselves strongly on this point. "These excrescences (says the former) are considered by many not as simply a consequence of the venereal poison, but as possessed of its specific disposition, and therefore they have

[1] Pulv. sabinæ.
Hyd. bichloridi.
Hyd. nit. oxydi, āā ʒiij. M.

recourse to mercury for the cure of them; and it is asserted that such treatment often removes them. Such an effect of mercury I have never seen, although given in such quantities as to cure in the same person recent chancres." (Hunter, p. 268.)

313. The latter says, "The warts which succeed to chancres commonly remain equally firm and obstinate after mercury has been given as they were before, and are to be removed by the same means as if the constitution had never been diseased. This is a point which, in a particular manner, merits attention, for whilst the opinion is retained of warts on these parts being, in most instances, connected with a constitutional syphilis, much mischief is apt to be done by a great deal of mercury being given where no advantage can ever ensue from it. In the treatment of warts I have known the constitution almost ruined by one course of mercury after another, without any effect upon the excrescences, which were afterwards easily and speedily removed by remedies applied directly to the parts themselves." (B. Bell, pp. 415, 416, vol. 1.)

In the very recent state, where they spring from the surface of an ulcer which has been treated without mercury, they may, in some cases, be removed by the administration of this medicine in the usual way in which it is employed for the cure of chancres generally; but this, unquestionably, should not be done till local remedies have been fully tried, and found to fail. In the very recent state, then, of fungi springing from the surface of ulcers treated without mercury, this remedy may and should be employed if local means fail. If, again, warts have been removed by the knife, a plan certainly not generally to be recommended, and the cut surface run into a foul intractable sore, mercury may be employed for the treatment of such sore, which is, in all probability, specific. In all other instances of primary warts mercury must be abstained from, since not the least probable benefit is to be expected from its employ.

Treatment of secondary forms.

314. The treatment of the secondary forms of venereal excrescences is to be conducted on principles totally different from those which guided us in the management of the primary

forms. Here local treatment is comparatively of little use, and constitutional or general treatment is most to be depended on. When, then, we are fully satisfied, from the history of the patient, the appearance of the disease itself, and the preceding or accompanying symptoms, that we are called to treat a case of this nature, if there exist no special contra-indications in the constitution or state of the patient at the time he is presented to us, we should lose no time in submitting him to a mercurial course under the rules which ought generally to guide us in the administration of this drug. The mercurial vapour-bath may also be employed with great benefit, and the condylomata touched with Plenck's solution.[1]

[1] ℞. Alcoholis.
Acidi acetici, āā ℥ss.
Hyd. bichloridi.
Aluminis.
Camphoræ.
Plumbi carbonatis, āā ʒss.

M. Verrucæ aut condylomata penicillo hoc liquore madido semel vel bis de die tangantur.

CHAPTER XIX.

OF THE SYPHILITIC TESTICLE.

315. This disease, termed also syphilitic sarcocele, occasionally appears as a secondary symptom of constitutional syphilis: it is clearly to be distinguished from that affection of the testicle which succeeds to gonorrhœa, as well as from sarcocele depending upon other causes not syphilitic. It is most frequently associated with other secondary diseases, as the syphilida, iritis, &c. When the testicle is affected, it gradually enlarges, becomes hard and heavy, and generally presents an uneven surface to the touch; the induration may also exist in the spermatic cord or epididymis.

316. Ricord most prudently observes, that in all the diseases of the testicles, which appear of a doubtful character, we must be extremely cautious in recommending amputation of the part. Dupuytren, in cases of this character, submitted his patients to a general mercurial treatment, and by this plan saved an immense number of testicles.

317. The internal treatment of the venereal testicle consists in a modified mercurial course, or the use of the iodide of potassium. Cullerier highly extols the latter remedy, and was very successful in its employ. The local treatment may be pretty much the same as that recommended for the gonorrhœal testicle, viz. local bleeding, fomentations, lotions, anodyne and mercurial friction, and when quite indolent, strapping with mercurial and ammoniacum plaster, or the plaster "de Vigo."

CHAPTER XX.

SYPHILITIC DISEASES OF THE PERIOSTEUM AND BONES. (OSTITIS, PERIOSTITIS, CARIES, NOCTURNAL PAINS.)

Nodes. 318. THOSE enlargements of the bones, termed nodes, appertain to the natural history of the progress of syphilis, if suffered to go on unchecked by remedies. Nodes arise as a consequence of primary venereal ulcers, when the disease has become constitutional from the absorption of the poison, and the poison has penetrated very deeply into the system. The bones are amongst the last organs to be affected by the venereal poison; hence, Hunter places them amongst the second order of parts affected in constitutional syphilis, and Ricord ranks them amongst his tertiary symptoms, in which, says he, the syphilitic virus is completely transformed. "It might be said (says M. Ricord) that in the secondary forms of constitutional syphilis, the virulent cause—i. e. the poison still exists unchanged; but in the tertiary symptoms, amongst which we place the 'venereal node,' it is completely transformed." We may naturally here inquire whether mercury has anything to do with the production of nodes. I confess that I am disposed to think that a great deal of mischief is due occasionally to a mercurial course. "It is a fact," says Mr. Carmichael, (Clinical Lectures on Syphilis, p. 10,) "that in those cases of syphilis treated without mercury, the secondary symptoms are particularly mild, and the bones are seldom or never affected." Yet Mr. Carmichael admits the occurrence of diseases of the bones as proper to the natural history of

constitutional syphilis, succeeding to three out of the four kinds into which he divides primary venereal sores.[1]

319. On the other hand, M. Ricord thinks that peculiarity of constitution, particularly the lymphatic temperament, a system depressed by dissipation, poverty, insufficient clothing, exposure to damp, &c. predispose to the occurrence of such forms of disease. Causes.

The treatment of the primary and secondary symptoms certainly has an influence over the occurrence or non-occurrence of the tertiary; "hence (says Ricord—Acton on Venereal Diseases, p. 390), daily experience proves that if secondary symptoms be treated without mercury, tertiary symptoms will frequently follow, and that even when mercury is employed at the early period of the occurrence of secondary symptoms, the appearance of tertiary symptoms cannot be prevented; in such cases, however, provided the mercury has been used judiciously, they will be slight." (Acton, 390-1.) It does not follow that secondary symptoms should always precede the occurrence of tertiary, though in most cases they do. In many instances the disease passes on from the first order of parts affected to the third, without the intervention of any disease belonging to the secondary order. Thus I have seen sores on the genitals, and bubo (the first order of parts), followed by nodes on the forehead, and on the shafts of the long

[1] Exposure to cold, whilst suffering from other forms of syphilis, or when using, or after having used, mercury, are considered by many writers as the chief causes of these forms of diseases of the bones. These diseases are also much less frequent in hot countries than cold, and in those places where a systematic simple treatment without mercury is followed. They are said to be rare in Sweden, Denmark, Hamburgh, and Vienna, where such treatment is adopted. On the other hand, such diseases of the bones are unknown, except syphilis have existed in the constitution, though they are more frequent, perhaps, when mercury has been given for its cure if the patient be of bad habit of body, and exposed to cold during its administration. The same remarks will hold good with regard to syphilitic iritis. Yet these diseases, the latter more especially, are, in many instances, only to be cured by mercury.

bones (third order); but no disease of the second order of parts, no secondary symptoms properly so called.

320. "The rarest cases that we meet with are those which succeed to primary sores treated by mercury, when, after exposure to cold, from disease, or some exciting cause, tertiary symptoms declare themselves at first under a slight form, but successively increasing in severity." (Acton, 391.) In such cases we have a disease to contend with which, in the language of John Hunter, is compounded of syphilis, mercury, and the constitution. It must at once be evident that the treatment in such a case cannot in any way be specific.

Pathology. 321. Nodes, as they are commonly termed, result from an effusion or deposit between the periosteum and bone, the result of inflammation affecting one or both of these parts. Very commonly they are dependent upon a superficial inflammation of the bone itself. These effusions between the periosteum and bone may consist of serum, pus, or lymph. Again, nodes commonly are produced by an effusion of a proper osseous matter, similar to the provisional callus first thrown out in cases of recent fracture. Some nodes, very likely, are thus formed, since they present the feeling of a true enlargement of the bone itself. This is, most probably, the first effect of the inflammation of the surface of the bone, and the effusion of pus and serum are subsequent, supposing the inflammation to proceed unchecked by remedies.

Terminations. 322. Nodes may terminate in a great variety of ways. First, by resolution i. e. by the subsidence of the inflammation of the bone and periosteum which produced them, and the absorption of the fluids or matter effused. In other instances, after the node has disappeared, the surface of the bone remains uneven, depressions exist in it, as though a portion of the bone had been eaten away, which is the case. This either arises from the pressure exercised by the effusion of the fluid between the periosteum and bone having produced absorption, or from the bone having become softened and carious from inflammation of the bony tissue itself. This mode of termination we have often seen exemplified where, after the

disappearance of nodes, the surface of the bone has been found destroyed to some considerable extent; this is, no doubt, the mode in which the appearances witnessed frequently in diseased bones are produced. If the node has suppurated, and has either burst of itself or been punctured by a lancet, and the surface of the bone has been exposed, caries commonly follows to some extent, and the soft parts run into ulcers exceedingly difficult and sometimes impossible to heal. Ulcers of this kind, to which every variety of application has been used at times get nearly well, and then suddenly begin to ulcerate again, having thickened edges, not unlike a primary venereal sore on other parts. In some instances, where osseous matter has been thrown out between the periosteum and bones, such effusion remains permanent; the inflammation accompanying, or dependent upon such state, subsides under proper treatment, but the deposit of osseous matter remains permanent, and produces one form of exostosis.

Differential diagnosis.

323. It is possible that venereal diseases of the bones and periosteum, but more particularly inflammation of the latter, causing effusion between it and the bone, may be mistaken for or confounded with periostitis arising from other causes, and more particularly where these are of rheumatic origin and character.

324. In drawing a differential diagnosis between cases of rheumatic periostitis and venereal periostitis we should be guided by the history of the case, and the preceding occurrence of some of those forms of constitutional syphilis which belong to secondary symptoms.

325. I am not aware either that periostitis, arising from causes not venereal, is complicated or succeeded by those diseases of the bones ending in caries, which we so commonly notice in the disease when it has a venereal origin. I do not think that the symptoms immediately preceding the development of nodes would enable us to form a very certain diagnosis of the nature of the affection; they are both preceded for some time before the appearance of nodes by nocturnal pains. The seat of the pains may in some measure guide us. In the

rheumatic forms of disease the pains are situated in the joints or fleshy parts, as the shoulders; in those of venereal origin the pains are more in the shafts of the long bones, particularly of the radius, ulna, tibia, fibula, and in the bones of the head; in the rheumatic forms they sometimes, but rarely, affect the parts I have mentioned. Venereal nodes are, again, to be carefully distinguished from that uneven and irregular enlargement and softening of the surface of the bones, which is dependent upon rickets; the experienced Portal has shown that some forms of constitutional syphilis are marked by softening of the bones, without caries or exostosis. The first series of cases narrated in his Treatise on Rickets refers to venereal rickets, or rickets traceable to a venereal taint. He states that this species of disease may produce softening of the bones without caries; at other times it produces a peculiar brittleness.

Prognosis. 326. The prognosis in venereal diseases of the bones and periosteum is not always favorable. If the health of the patient be unbroken by previous courses of mercury incautiously administered, we may hold out hope of recovery with some degree of certainty; but if the constitution has been impaired by poverty, debauchery, bad living, mercury, and syphilis, all contributing their part to the destruction of the patient, we have a disease to contend with which will sometimes baffle all our treatment, however skilfully it may be framed, and however unweariedly it may be followed out both by practitioner and patient. At any rate no rash promises must be made as to certain and speedy amendment, since relapses after partial restoration are so frequent.

Treatment. 327. This naturally divides itself into constitutional and local. By the former we endeavour to correct the poisoned condition of the system from which the local disease had its origin, and upon which it depends. By the latter we endeavour to remove the local effects which such a condition of the system generally has produced.

328. Most of the earlier modern writers on syphilis, from Hunter downwards, recommend full mercurial courses for the

cure of syphilitic diseases of the bones and periosteum, such as those I have described. Amongst the more prominent of these writers, I may mention Hunter, Bell, and Swediaur. The latter says, "All syphilitic complaints of the bones require a complete mercurial course, continued longer than for the affections of the soft parts; for it is sometimes necessary to continue the use of mercury for three or four months, in order to obtain a radical cure." Bell says (p. 239, vol. ii,) "In every affection of the periosteum and bones, arising from the syphilitic virus, mercury should be given immediately, for it is upon this remedy that we chiefly depend." The same opinions will be found reiterated by all modern writers, from Hunter downwards, till the therapeutic effects of the hydriodate of potass attracted attention in certain forms of constitutional syphilis. We find Sir A. Cooper inculcating the same line of practice.

Comparative effects of mercury and iodine.

329. Venereal diseases of the bones and periosteum we have now learnt may, in many instances, be treated by iodine and the hydriodate of potass, as successfully as by mercury; at least it becomes our duty, generally speaking, in these affections, not to have recourse to mercury till we have tried these medicines and proved their inutility. Venereal nodes, too, will often return after they have been treated by mercury, and it then becomes certainly a much more prudent course to try the effect of the preparation of iodine than to submit the patient again to mercurial treatment. We may, perhaps, be enabled to judge from the history of a case which remedy is the most likely to benefit the patient: I believe it possible to point out the kind of case in which each might find its suitable application. If a patient present himself with a true venereal disease of the bones and periosteum, if the health be tolerably good, and if the primary or secondary antecedent venereal disease of such patient have been treated on the simple plan without mercury, I would recommend at once a mercurial course. He may, it is true, be cured by the hydriodate of potass, but we shall be longer about it; he will not be cured as well, and it will be at much greater expense of pain to the patient. If, again, in

such a case, the inflammatory action accompanying the disease be very acute, the parts very hot and tender to the touch, and the integument covering the bones itself inflamed, mercury is still more strongly indicated; get your patient as quickly as you can under its influence, not, perhaps, so much with the view of specifically curing his syphilis, as with the intention of controlling inflammation by the aid of mercury. We know how efficacious mercury is in the treatment of many forms of acute disease, and more particularly when acute inflammation of this character is the result of a venereal taint. The circumstances which are to lead us to select mercury as a remedy in venereal diseases of the bones and periosteum are, an unimpaired constitution on the part of the patient, and his previous syphilitic diseases having been treated on the simple plan without mercury. Where diseases of the bones and periosteum occur in patients whose health is either naturally delicate, or which has been rendered so by protracted venereal diseases and repeated courses of mercury, I would not advise mercury. We may, possibly, by having recourse to it under such circumstances, benefit the patient for a short time, but the disease is very liable to return, and the constitution will be very probably utterly destroyed. In a case of this kind, we may, with every prospect of advantage to the patient, commence the constitutional treatment of the disease by the hydriodate of potass in three or five grain doses, three times a day, in an ounce of cinnamon or peppermint water, the compound infusion of gentian, or the compound decoction of sarsaparilla. There commonly exists a preternatural irritability in the bowels of patients who have frequently had recourse to mercurial courses; and hence it becomes very necessary to guard against any ill effects (such as pain or purging) which the hydriodate of potass may produce; for this purpose a few minims of the tincture of capsicum, with or without laudanum, may be added, according to circumstances, to the vehicle in which the potass is given. The dose of the hydriodate must be gradually increased from three to five grains every three or four days, till the disease give way, or some circumstance occur which will

prevent us either continuing its employ, or requiring a diminution in the dose.

330. Almost all the varieties of venereal nodes are, on their first appearance, tender to the touch; the first effect of the hydriodate is a diminution of this tenderness, then diminution of the node itself, which, in many cases, gradually and entirely disappears under the use of this salt. If, after the continued use either of this medicine or mercury for a reasonable length of time, the node have diminished to a certain point, and there remains hard and stationary, without tenderness, we are to look upon this as effused osseous matter, constituting a true exostosis, which is hardly likely to be removed by a further continuance of medicine.

Local treatment.

331. The local treatment of venereal diseases of the bones and periosteum is also of great importance. As many of them are ushered in with symptoms of inflammation more or less acute, an antiphlogistic local treatment, suited to the degree of inflammation present, should be adopted; several relays of leeches should be placed over the node till all tenderness shall have disappeared; these are to be succeeded by blisters, which should be dressed with the stronger mercurial ointment. The continued application of blisters, even after all constitutional treatment appears to have lost its effect, will often succeed in reducing very considerably the size of a venereal node. Many other remedies may be used, with the view of dispersing a node when perfectly chronic, i. e. when all symptoms of inflammation have disappeared; amongst these may be mentioned frictions with mercurial ointment and camphor, the hydriodate of potass ointment, the application of the tincture of iodine, or the solution of iodine in the hydriodate of potass, so generally used, and with such signal success; pressure and strapping with the emp. ammoniaci cum hydrargyro, which I have so usefully employed in the same way in venereal affections of the testes, particularly those which succeed to gonorrhœa. A question of great practical importance remains to be here considered, in reference to the treatment of collections of fluid which succeed to or accompany

venereal ostitis and periostitis. If fluctuation be evident in a tumour of this kind, and no redness or thinness of the integument have taken place, I do not think any author imprudent enough to recommend the puncture of such a tumour, with a view of discharging its contents; should we do so we are very likely to produce caries and exfoliation of the bone beneath, the extent and consequence of which it is impossible to foresee. Sir A. Cooper mentions the case of a person who died in consequence of exfoliation produced by the opening of nodes on both his tibiæ. In these cases, we are on no account to lay open these collections of fluid, but by a perseverance in the constitutional method of treatment, and the repeated application of blisters, to endeavour to procure absorption of the fluid effused. Where the existence of pus is rendered still more certain by the redness and shining appearance and thinning of the integument covering the tumour, I cannot follow the advice of Sir A. Cooper, "to make an incision down to the bone." I would rather press the importance of the advice given by Mr. Colles in reference to this point. "Some," says Mr. Colles, "have proposed the early opening of the tumour, and the evacuation of all the contained fluid. To this proposal I would object, that in some cases this particular practice is followed by painful suppuration, and by very copious discharges, and not unfrequently by caries and tedious exfoliation of the bone. It seems preferable in all cases to try the local and constitutional effects of mercury and iodine, and by means of these to endeavour to avert suppuration and ulceration. This rule should be most strictly adhered to in the case of nodes on the forehead, or on any exposed part of the body; for when a node has been of long standing we often find that a sort of chronic suppuration is established, the integuments become thin and sometimes red; at other times they are reduced to the utmost degree of thinness, and yet may retain their natural colour, so that the surgeon is actually tempted to give vent to the fluid by the puncture of a lancet. Yet if he will but resist the temptation which the very thin state of the skin offers to him to open it, and will still apply

repeated blisters, he will have no reason to lament his forbearance; for as soon as the mercury or hydriodate of potass comes to act favorably on the system, he will perceive that the fluid begins to be absorbed, and that this process will finally be terminated by the adhesion of the skin to the surface of the bone. From the depressed position of the skin after adhesion has taken place, and the sunken unequal surface which the bone presents to the touch, we are convinced that an absorption of the bone has gone on to some depth." [1]

332. In such cases, then, it might be well, if much distension present, not to lay the abscess open with a lancet, but to puncture with a very fine trocar. This mode of practice will relieve the distension, and give time for other treatment to be brought to bear, at the same time the puncture will be so small that no air can possibly be admitted, the surface of the bone will not be exposed, and the risk of caries and exfoliation will certainly not be increased.

[1] Colles, p. 187.

CHAPTER XXI.

ON THE TREATMENT OF SYPHILIS IN PREGNANT WOMEN, NURSES, AND INFANTS.

333. SYPHILIS may be communicated from the mother or nurse to the ovum, fœtus in utero, or the infant, in the following ways:

1st. The virus may be transmitted with the semen by cohabitation during gestation, or at the time of conception. [1]

2d. The infant may contract disease during labour, by coming in contact with parts of the uterus, vagina, labia, &c., which are the seat of various forms of venereal taint.

3d. The infant may become diseased after birth through the medium of the milk, &c. the mother or nurse being affected; the breast being the seat of local symptoms or not.

The disease may also be propagated by a diseased child to a healthy nurse, and the latter may again give it to a healthy infant, "without," according to Bertin, "the nurse *appearing to be infected.*"

334. Cullerier, in a Memoir published in 1815, has endeavoured to lay down some rules to guide us in reference to this subject.

1st. If the breasts of the nurse and the mouth of the infant are only, and at the same time, diseased, the question is one of doubt in which the disease originated. 2d. If the breasts *alone* are diseased, and if the infant has symptoms in other parts be-

[1] See Bertin (Physician "en chef" of the Venereal Hospital, Paris,) Traité de la maladie vénérienne chez enfants nouveau-nés, les femmes enceintes, et les nourrices. Paris, 1810.

sides the mouth, it is very probable that the latter has been the first infected. 3d. If the infant has the mouth alone diseased, and the nurse has other symptoms besides those of the breast, it is most probable the infant has been diseased by the nurse: 4th. If the nurse has general constitutional symptoms, and the infant only local symptoms, the disease probably originates with the nurse. 5. If the infant has general constitutional symptoms the disease is most likely hereditary.

This point is not always easy to solve, but the rules given will be found, in most instances, correct, and are very useful in guiding us in the formation of a correct diagnosis.

335. A patient, whose case is already referred to, was admitted under my care at the Queen's Hospital, suffering from a pustulo-crustaceous syphilitic disease of the skin of very formidable character. He was there treated and cured. His wife brought her infant to me covered with scaly blotches, whilst the husband was in the hospital; the child was plump and apparently healthy when born, but a few weeks afterwards these patches broke out, and the health began to decline. The mother presented no evidence of disease, and the breasts, as well as the infant's mouth, were free from ulcerations. She was extremely anxious to be examined, fearing she might be labouring under some affection of the parts themselves. I instituted the most careful examination with the speculum, not only once, but four or five times, and could never discover the least local disease, either in the vagina, uterus, labia, nymphæ, or the folds of muco-cutaneous membrane surrounding the clitoris, &c. &c. The child, in this instance, was alone treated, and cured. I purposely abstained from treating the mother, whom I had watched for nearly two years. She has never suffered from a syphilitic symptom in any form. Case.

This appears to have been a case of syphilis in the infant, transmitted by the father to the ovum or fœtus in utero; the mother never having suffered from disease, and never having been treated under the suspicion that she was diseased. I purposely abstained from treating her to see whether syphilis Remarks.

would sooner or later develop itself. Up to the present moment, two years from the birth of her child, she has remained perfectly healthy. Mr. Acton introduced to the Medico-Chirurgical Society, May 13, 1845, a case of similar character.

Case. M. H—, nine weeks old, was placed under Mr. Acton's care, on account of an eruption, chiefly papular, over the whole body. The voice was hoarse, and there was slight discharge from the nose; the palms of the hands presented a scaly copper-coloured eruption. The mother stated she married four years ago, became soon afterwards pregnant, and at the full time gave birth to a dead child. During the following year she miscarried. On the occurrence of the third pregnancy, the child, the present patient, was born at the full time perfectly healthy. About the third week, spots were observed on the genital organs. No symptom, either of primary or secondary disease, could be discovered in the mother. The father, about four years ago, contracted chancres, was salivated, and secondary symptoms followed. He again took mercury, and, fancying himself well, married, and denies having had any primary symptoms since, although he has occasionally seen white spots on his mouth and tongue.

Remarks. This is a second example of one mode in which syphilis may be produced in the infant; by a constitutional taint in the father, and no evident disease in the mother. Many of the gentlemen who took part in the debate on this case, Dr. King, Dr. Merriman, Mr. Arnott, Mr. Wade, and others, alluded to similar cases. The one I have brought forward from my own experience, was watched for so long a period and examined so carefully and so repeatedly, that I believe there can be no doubt of this occasional and perhaps frequent origin of hereditary disease.[1]

Primary diseases in the infant rare.

336. If a female, not constitutionally affected, at the time of her delivery be labouring under a primary venereal disease, either in the shape of ulcers or discharge, it is not improbable that such disease may be communicated to the infant during its

[1] See The Lancet, Jan. 7th, 1845, No. 1136.

birth, and thus a primary disease be produced in the offspring. These cases are, however, rare, and persons of the greatest experience, amongst whom may be mentioned M. Gibert, have hesitated to determine whether the ulcers or discharges with which some new-born infants, born of parents labouring under primary venereal diseases are affected, are due to a primary infection, or to a constitutional taint contracted "in utero." Bertin, to whom we have already alluded, has however recorded many cases of children born of women labouring under primary symptoms, and not evidently constitutionally diseased, who have presented, shortly after birth, ulcers, bubos, or discharges which had all the characters of primary venereal diseases, and were, in all probability, due to infection during the progress of labour.

What forms are really primary in the infant.

337. Two forms of syphilis, however, in the infant, are decidedly primary, due to direct contact or infection, and not dependent upon a constitutional disease. These are purulent ophthalmia, and ulcers in the mouth of an infant who has taken the breast of an infected nurse, whose nipples present marks of ulceration. The former of these is due to contamination during parturition, the second to an infection contracted after birth. It must not be supposed that the purulent ophthalmia of infants is invariably a syphilitic disease. It is not so. It occurs where the female has never had primary sores or vaginal discharges of any kind. It is again due to leucorreal or irritating secretions not of a venereal character, at least children born of parents so diseased have occasionally been affected with purulent ophthalmia; and it happens under a third form where the mother has decided gonorrhea, ulcers, or granular erosions of the os uteri. In the latter case it must be looked upon as a primary venereal symptom, at least caused by the circumstances on the part of the mother which we have mentioned. "I do not pretend to deny," says Gibert, "that purulent ophthalmia may not recognize as its cause a local venereal disease on the part of the mother, but I say, that in the actual state of science, this phenomenon alone is insufficient to characterize syphilis." When it occurs

in infants born of parents infected with syphilis in the way I have mentioned, it is difficult to assign to it any other cause.

Primary venereal diseases in the infant produced by disease in the passages of the mother are, at least, rare diseases. Drs. Maunsell and Evanson state (Diseases of Children, p. 531, ed. 4,) that they do not remember a case of this nature. Their experience corresponds with mine. I have now under my care an infant of fourteen weeks old, where neither father or mother have had any trace of disease for five years; the father was diseased six years ago, the mother never. She has had three dead children, prematurely born since her marriage, and this, her first living child, exhibited symptoms of syphilis at five weeks old, commencing with snuffling, discharge of pus and blood from the nose, subsequently a pustulo-papular eruption, soon becoming scaly.

Symptoms of syphilis in infants.

338. These are, as we have shown, of two kinds, primary, and secondary or constitutional; the former rare, the second more common. The former consist in purulent ophthalmia, and ulcers of the mouth, to which some have added chancres or ulcers in the parts of generation or elsewhere, discharges from the vagina, or urethra, and even bubos. The constitutional forms of disease consist chiefly in affections of the skin which are the most frequent, and belong to the various forms of the "Syphilida" already described. Affections of the bones are very uncommon, although Bertin has given a case of disease of the bones and periosteum in an infant thirty-five days old.

Dr. Golding Bird (Guy's Hospital Reports, April 1845.) has described a characteristic snuffling as one of the most marked symptoms of infantile syphilis, "the puckered mouth, the position of the very characteristic eruption round the lips and anus, in addition to the peculiar and fissured appearance of the surface from which the scales have faded, will seldom, if ever, fail to convert a suspicion of the disease into positive certainty. Condylomatous excrescences from the margin of the anus have never, in any of the cases, accompanied the earliest development of the syphilitic affection, but were always

secondary, being observed in those children only whose primary affection was neglected or incompletely eradicated. When the eruption occurring on the nates and face, in the first few weeks of life had been promptly treated, no condylomata appeared on the anal margin, at least so long as the children were kept in sight. But, on the contrary, when the eruptions were neglected, condylomata were the almost certain results."

The period after birth at which symptoms of syphilis in the infant generally appear

339. Occasionally infants at the moment of birth present the symptoms of syphilis, and in addition to such symptoms, are shrivelled and emaciated, the skin hanging in folds in different parts of the body. It more frequently happens that these symptoms are not manifested till many days, weeks, or even months after birth. More commonly disease shows itself from the third to the sixth week, it may be however earlier, more frequently later. "In the majority of infants confided to my care, the disease has not appeared till the first, second, or third month, and frequently much later." [1] "The two physicians who had preceded me," continues this writer, "have, with me, observed that infants born of infected parents, have not presented the symptoms of syphilis till many months after birth, and sometimes not till they were weaned, and that up to this period they had appeared in the best health." The records of the Venereal Hospitals, "du Midi" and "Vaugirard," have shown that some infants born of diseased parents have never had symptoms of syphilis. In some instances these were the offspring of parents who had undergone treatment during pregnancy; or they were recently affected. In a second class, much smaller, the parents have never been treated, and yet the infants watched for upwards of a year had never shown any symptoms of venereal taint.

Of the treatment.

340. Many interesting questions propose themselves for our consideration in reference to the treatment of pregnant women, nurses, and infants. We will consider first, whether a pregnant female presenting the symptoms of primary or constitutional syphilis is to be treated, and

[1] Bertin, op. cit. p. 97.

how she is to be treated. Some have supposed that a mercurial course predisposed a pregnant female to miscarriage. This, however, is incorrect. Bertin has stated (Op. cit. p. 169) that pregnant females with constitutional syphilis much less frequently miscarry when they are submitted to an appropriate treatment, than they do if the treatment be postponed till after delivery. The disease is here more to be dreaded than the treatment. If the treatment be adopted and conducted cautiously, there is very little to dread, either on the part of the female, or the fœtus. The mother is very likely to be cured, and a healthy child born. If it be neglected, premature labour, with death or formidable disease in the child, are almost certain [1]. For confirmed constitutional syphilis, or well-marked primary sores occurring in pregnant women, a modified treatment, the effects of which are to be carefully watched, is to be adopted, and persevered in till the symptoms have yielded. If mercury be used, the remedies best suited to these forms are frictions of small quantities of mercurial ointment, either upon the thighs, or in the axilla, with the mercurial vapour bath. These remedies are safer than internal mercurial remedies, which, if used, should be of the mildest character. In the advanced periods of pregnancy, great caution must be observed, and we would then limit the general treatment to frictions only. The remedies must be suited to the form and variety of the disease with which we have to contend, according to the rules already laid down. A plan of treatment must be framed to suit the particular circumstances of the case, whether the disease be in the throat, bones, or skin, and the nature of the eruption, whether pustular, tubercular, or scaly.

[1] Infants conceived and developed in the womb of a female suffering from constitutional syphilis seldom live beyond the period of the first dentition; if they survive this period, their health is generally delicate and precarious, in spite of the most rational treatment to which they may be submitted. See "Lagneau," Ex-Chirurgien de l'Hôpital Vénériennes. Syphilis de la femme enceinte. Paris, 1812, p. 283.

"Observation has taught me," says Bertin, "that diseased pregnant women more frequently miscarry when they have not been submitted to any treatment, than when they have been treated during pregnancy, and that when this event happens during the course of treatment, it depends commonly either upon the disease itself, badly treated, or treated too late, upon the state of cachexia or weakness to which the patient has been reduced by her disease, or upon the excesses she has committed during her pregnancy."

The result of modern experience shows that a pregnant female constitutionally diseased may be treated with safety, and with a strong probability of cure both to herself and the eradication and prevention of disease in the fœtus in utero.

It is not prudent to commence the full treatment of a pregnant female during the ninth month of her pregnancy. At this period a palliative treatment only should be adopted; if a mercurial one, it should consist in alterative doses of this drug merely, and frictions with small quantities of mercurial ointment every two or three days, leaving the full treatment to be commenced a month after delivery.

Treatment of primary syphilis in pregnant women.

341. If a female contract primary sores during pregnancy, two things are to be feared: constitutional infection both in herself and infant, and the contamination of the infant during parturition, a circumstance, though rare, sometimes happening. If the primary disease occur during the earlier months or middle of pregnancy, the female is to be fully treated, observing the cautions already laid down in reference to treatments during pregnancy, whether mercurial or not. Mercurial inunction is here also the best mode we can adopt if mercury be indicated.[1]

342. When a female is affected with primary ulcers on the genitals near the time of parturition, they must be destroyed by some appropriate caustic, to protect the infant from in-

[1] "Je pense, comme quelques praticiens, que le traitement par les frictions mercurielles est celui qu'il convient le plus généralement d'employer dans la syphilis primitive des femmes grosses." Baumès. Précis théorique et pratique sur les maladies vénériennes. Lyon. 1840.

fection on the one hand, and the accoucheur or midwife on the other. I have seen three or four instances of constitutions irreparably broken in medical men by syphilis, contracted from attending a female during parturition, with syphilitic affections of the vagina or os uteri.

Treatment of the infant.

343. Two methods have been proposed to treat an infant at the breast which exhibits symptoms of a venereal taint at a certain period after birth, and to these methods the terms *indirect* and *direct* have been applied. The first consists in submitting the mother to a mercurial course, or treating her by other remedies so as to make the milk, thus supposed to be medicated, the means of cure for the infant. Where an infant has been deprived of mother and nurse, it has been proposed to make a goat the substitute. Under these circumstances the hair was shaven from the back of the animal, and mercurial ointment rubbed well and constantly in. The child was fed with the milk that the animal, thus circumstanced, yielded. To this method the term indirect is applied. To the internal treatment should be added the use of baths, simple or medicated, and frictions upon the affected parts, with an ointment containing small quantities of the iodide, or white precipitate[1] of mercury, or the use of lotions, &c. suited to the particular symptoms under which the disease exhibits itself, for the treatment of which ample directions have been already given.

My own experience has been generally unfavorable to indirect treatments employed alone; associated with direct treatment, they are doubtless powerful auxiliaries. I most commonly administer to the infant the syrup of sarsaparilla, with the biniodide of mercury, in the proportions of one grain of the salt to four ounces of the syrup; half a teaspoonful to be given two or three times a day. Frictions of mild mercurial ointment, or a flannel belt smeared with the ointment and constantly worn, are also remedies of great efficacy.

[1] R. Hydrargyri ammonio-chloridi, grs. xv.
Adipis, vel. unguenti cetacei, ℥j. M.

CHAPTER XXII.

ON THE EMPLOYMENT OF PARTICULAR REMEDIES IN THE TREATMENT OF PRIMARY AND CONSTITUTIONAL SYPHILIS.

Of particular Preparations of Mercury, and their Mode of Employment.

MERCURIAL FUMIGATIONS.

344. These forms of the remedy are principally employed in obstinate affections of the skin, the throat, or the nasal fossæ; and though they may be useful in the primary forms of disease, without any other mercurial preparation, they are chiefly so when its external exhibition has failed. The method employed by Werneck, in Germany, appears the simplest and most efficacious, and is that which I have now for a long time had recourse to.

345. Mercurial fumigations, and the mercurial vapour-bath, are comparatively useless in the primary forms of disease, unless as auxiliaries to other means. I have tried them alone in primary indurated ulcers, with, at best, little success. In all forms of venereal eruptions, when the fever accompanying their onset has subsided, in nodes, in indurations of the cicatrix remaining after the healing of chancres, in ulcers of the throat, and almost every form of

secondary and tertiary syphilis, the mercurial vapour-bath, combined with the ordinary vapour-bath, is a remedy of the greatest utility. Alone it commonly works speedy and remarkable cures; as an auxiliary in the forms of disease, I have mentioned it as a remedy of great power. I have obtained, by means of this combination, an almost unprecedented success in the treatment of all forms of constitutional disease. I have seen the chronic pustular forms yield to eight or ten applications of these baths, which had resisted all internal treatment; indeed, in many forms of skin disease, a great expenditure of time and health is saved to the patient by the use of these powerful baths, and they ought, at least in most instances, to be associated with whatever internal treatment may be employed.

346. The patient is prepared for the fumigations by low diet, the warm bath used daily, aperients, and the compound decoction of sarsaparilla. This preparatory treatment is pursued for five or six days prior to the fumigation, and the patient is confined to his room, which should be kept moderately warm. At the end of this period a smart aperient should be exhibited, and the fumigation may be then employed. The patient is placed upon a seat, covered with a mantle of waxed or oiled cloth; the apparatus, which consists merely of a spirit lamp and a china plate, upon which the cinnabar or bisulphuret of mercury is laid, put under it. The mantle should be fixed closely round the neck, to prevent the mercurial vapours escaping into the room.

347. The fumigation is continued for a quarter of an hour, in a warm chamber, and, at its conclusion, the patient is directed to go to bed; it is for this reason that the remedy is most conveniently employed in the evening. The quantity of cinnabar necessary for each fumigation is from twenty grains to a drachm; one application a day is sufficient, and the cure is generally complete in eighteen or twenty days; in case of salivation occurring, or any circumstances affecting the constitution of the patient, the fumigations must be used less frequently, the quantity of the mercury diminished, or the remedy

altogether discontinued. When the treatment is terminated, the patient is to change his linen and take a bath.[1]

348. Very frequently fumigations with the sulphuret of mercury produce remarkable cures. It is rare that papular or even pustular venereal affections of the skin resist their application. Their use is indicated in obstinate chronic ulcerations of the mouth, throat, nose, and other parts, and, by a very simple contrivance, the vapour of a very few grains of cinnabar may be directed easily into the depths of these parts.

THE CHLORIDE OF MERCURY.

349. The proto-chloride of mercury, or the chloride of mercury of the London Pharmacopœia, is extensively used in venereal diseases. Desruelles speaks highly of its anti-venereal properties. The following is the form in general use at the hospital of Val de Grace:

℞. Hydrargyri chloridi,
Ext. conii, āā gr. j.
M. Pulveris glycyrrhizæ, q. s. ft. pil.

The quantity of the extract of conium may be increased, or a small quantity of opium added, if the circumstances of the case require it. These pills are administered at first in the dose of one or two a day, gradually increased; Desruelles occasionally pushes them to the extent of twenty-five or thirty in the twenty-four hours.

350. The employment of this combination of the chloride of mercury is particularly indicated in chronic inflammations of the testicle, complicated even with ulceration, or incipient disorganization of these parts. In such cases, some surgeons place implicit reliance on this preparation of mercury, and

[1] See Werneck's memoir in the Revue Médicale, for January 1831. Also, Rapou, Traité de la Méthode Fumigatoire, &c. Paris 1824, 2 v. 8vo.

state that it rarely fails, even in the worst cases. It is also extensively employed in tubercles of the labia, with or without ulceration; in various forms of creeping ulcers; and also in ulcerations of the throat and nasal fossæ. We cannot, says M. Desruelles, too much recommend this preparation, which, united to opium, and an antiphlogistic regimen, may produce the most beneficial results.

Another form:

℞. Ext. conii, gr. iij.
Hydrarg. chlorid, gr. j.
Antimonii sulphureti præcip. gr. j. M. ft. pil.

Ricord's form:

℞. Hydrargyri chloridi, ℈j.
Pulveris conii,
Saponis Hispaniolæ, āā ℈ij. M. ft. pil. xxiv.

These pills may be employed in the treatment of enlargements of the testicle, which remain after inflammation of this organ, complicating or succeeding to gonorrhœa.

THE BICHLORIDE OF MERCURY.

351. The bichloride of mercury is employed chiefly in the French hospitals, in certain forms of primary syphilitic sores, with hard base and edges, which have resisted the simple mode of treatment; also in secondary syphilis generally, particularly in those varieties of it which are complicated with ulcerations of the mucous surfaces. According to Dzondi, whose method of treating syphilis is extensively followed in Germany, and at La Charité hospital of Berlin, the bichloride of mercury is the chief preparation of this remedy on which reliance should be placed in the treatment of constitutional syphilis.

FORM IN USE AT VAL DE GRACE.

℞. Hydrargyri bichlorid., gr. ¼.
Pulv. opii, gr. ½. M. pulv. glycyrrhizæ, q. s. ft. pil.

One a day for the first ten days, the dose then gradually in-

creased. M. Desruelles does not exceed half a grain of this salt a day.

DUPUYTREN'S FORM.

℞. Hydrargyri bichlorid., gr. ij.
Pulv. opii, gr. viij.
Gum. guaiaci, gr. xxxij. M. ft. pil. xvj.

M. Dupuytren was of opinion that small doses of the bichloride of mercury were more efficacious than larger ones, he rarely exceeded the sixth of a grain for a dose. One of the pills of the above form were given three times a day.

352. Dzondi's pills each contain one twentieth of a grain of the bichloride united with a small proportion of opium. He administered, in the commencement, four a day, half an hour after the dinner meal. Twelve grains of the bichloride of mercury are made with an inert powder, as liquorice, into 238 pills. Four of these are given the first day; the day but one after, six; increasing the dose two pills every day, and leaving one day's interval between each dose, so that on the thirtieth day from the commencement, the patient takes thirty pills, or one grain and a half of the salt.

The patient should be strict in his regimen during this treatment, avoiding all stimulant and much animal food. The efficacy of the plan is much augmented by taking frequent drinks of the warm compound decoction of sarsaparilla throughout the day.

THE IODIDE OF MERCURY.

353. MM. Cullerier, Biett, and several others, employ the iodide of mercury in preference to the bichloride, as more certain in its effects, and less liable to decomposition. This preparation may be employed in primary syphilitic sores in strumous habits, but is chiefly resorted to in chronic affections, and in those varieties of disease which have been described by authors as constitutional syphilis.

M. CULLERIER'S FORM FOR THE EMPLOYMENT OF THE IODIDE OF MERCURY.

℞. Hydrargyri iodidi, gr. xij.
Ext. v. pulv. opii, gr. vj.
Gummi guaiaci ʒj. M. ft. pil. xxiv.
Capiat 1 nocte maneque.

POMMADE OF VAL DE GRACE.

℞. Hydrargyri iodidi, ϑj.
Adipis, ℥j. M.

Employed in friction upon tumours and indolent buboes after all acute inflammatory symptoms have disappeared.

354. It is, says M. Cullerier, in secondary syphilis that the iodide of mercury is administered with success. Its effects are principally evident in secondary ulceration of the mucous membranes, cutaneous tubercles, exostoses, and chronic affections of the joints, where the other preparations of mercury have had little effect.

355. The biniodide of mercury may be employed in friction or in pills, in the same manner as the iodide; it is stronger and more stimulating, and consequently should be administered in smaller doses. Both these remedies may be advantageously employed in all cases of secondary syphilis, with more certainty and less risk than the bichloride; also in indolent buboes, in obstinate ulcers with hardened base and edges. In all instances they must be guarded by opium, and the patient must be submitted to a strict dietetic and antiphlogistic regimen during their employ. The dose of the biniodide is from $\frac{1}{16}$ of a grain to a grain.

356. The iodide of mercury is one of the most powerful remedies we possess in the treatment of constitutional syphilis; little applicable to the primary forms of disease, in the secondary and tertiary it becomes truly valuable. It is particularly indicated in tubercular and chronic pustular diseases of the skin; in diseases of the bones; in secondary ulcerations; in many forms of cachexia, and in those anomalous and compli-

cated cases of old standing, where the constitution has long suffered from protracted and varied treatment, and still the disease remains. It frequently cures after the failure of all other remedies; the fact is incontestable that one preparation of mercury is commonly successful when another has failed, and this is particularly remarkable in the iodide. It should not be given in too small doses.

THE CYANURET OF MERCURY.

(*Bicyanide of Mercury.*)

357. The cyanuret of mercury is now frequently employed in preference to the bichloride, and for the following reasons. It is more soluble and not so liable to decomposition, acts more quickly, and does not occasion those pains in the stomach and bowels that so frequently accompany the prolonged administration of the bichloride. According to the researches of M. Parent,[1] the cyanuret of mercury is not decomposed by either acids or alkalis, nor by decoctions containing azotized principles or gallic acid.

358. The cyanuret of mercury may be administered internally in pills, or in solution, and used externally in form of pommade or ointment. M. Cullerier employs the cyanuret in primary syphilis. Externally it is an extremely useful application to various forms of herpes, particularly that form termed by Alibert, "herpes squamosus," the violent itching and irritation of which it allays. It may be employed externally also as a dressing to indolent syphilitic ulcers, and scirrhous tubercles, or as a gargle in ulcerations of the throat. The dose of the cyanuret is from $\frac{1}{16}$ of a grain to a grain.

GARGLE OF THE CYANURET OF MERCURY.

℞. Hydrargyri cyanuret. gr. x.
Infus. lini comp. ℔ j. M.

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[1] Revue Médicale, Août 1832.

PILLS OF THE CYANURET OF MERCURY.

℞. Hydrargyri cyanuret. gr. viij.
Pulv. opii, gr. xvj.
Ext. guaiaci, ʒij. M. ft. pil. lxiv, capt. j, ter die.

OINTMENT OF THE CYANURET OF MERCURY.

℞. Hydrargyri cyanuret. gr. xij.
Adipis, ℥j. M. ft. unguentum.

SOLUTION OF THE CYANURET OF MERCURY.

℞. Hydrargyri cyanuret. gr. vj, ad gr. x.
Aquæ, lb. j. M.

Half an ounce for a dose, administered in a mucilaginous vehicle or with the addition of sugar in form of syrup.

PILLS OF THE CYANURET OF MERCURY.

℞. Hydrargyri cyanuret. gr. xxiv.
Ammoniæ muriatis, ʒiij.
Guaiaci gummi, ℥ij.
Ext. aconiti, ʒij.
Ol. anisi, ♏ xxiv. M. mucilaginis, q. s. ft. pil. 400.

One or two twice or three times a day, the dose gradually increased. Each pill contains about $\frac{1}{16}$ of a grain of the cyanuret. These pills are a substitute for the bichloride of mercury in many forms of secondary syphilis.

ANOTHER FORM.

℞. Hydrargyri cyanuret. gr. vj.
Opii, gr. xij.
Micæ panis. q. s. ft. pil. xcvj.

Each pill contains $\frac{1}{16}$ of a grain of the cyanuret. The dose one or two pills twice a day in the commencement, and gradually increased.

THE DEUTO-PHOSPHATE OF MERCURY.

359. The deuto-phosphate of mercury is employed in Italy, more particularly at Naples, in the treatment of venereal affections in preference to the other salts of this metal. It may be given internally in pills or in solution, in the same doses as the bichloride. Employed by friction upon indolent buboes or exostoses, it is said to be preferable to all other forms of the remedy. It is of use also as a dressing to indolent chancres.

OINTMENT OF THE DEUTO-PHOSPHATE OF MERCURY.

℞. Hydrargyri deuto-phosphatis, gr. viij.
Adipis, ℥j. M. ft. unguent.

In cases of indolent bubo, a few grains are to be rubbed daily upon the tumour, the frictions also are to be made upon the groin of the opposite side. Our experience in the use of this remedy is drawn chiefly from the practice of Fiore and the Neapolitan surgeons, it is scarcely used in France, although occasionally employed in Germany.

360. The external employ of mercury is occasionally resorted to by Biett, in the treatment of certain forms of constitutional syphilis. It may be employed in baths, in fumigations, or in the shape of ointment. Weak solutions of the bichloride of mercury have been occasionally used at St. Louis, in the papulous, tuberculous, or vegetating forms of syphilis; they have, however, sometimes given rise to serious accidents. Fumigations or some other form of local applications may be substituted for them. Ointments of the iodide and biniodide of mercury[1] are used by Biett by way of friction, on parts of

[1] ℞. Adipis, ℥j.
Hyd. iodidi, gr. xxv. M.

℞. Adipis, ℥j.
Hyd. biniodidi, gr. xvj. M.

the skin affected with chronic indolent tubercles (syphilitic lupus.)[1]

361. At the Hospital St. Louis, the preparation of mercury, preferred in the internal treatment of the syphilida, is the bichloride, latterly the iodide has been preferred. Small doses of æther are added to the form of administration of the former in common use, this adds much to the efficacy of the remedy; diseases which have resisted the exhibition of the common solution, give way speedily to this combination.[2] To procure ease to patients suffering from pains in the bones the bichloride of mercury with opium, in the proportion of an eighth of a grain of the former, with a grain of the latter, is used by Biett. Dupuytren had recourse to the extract of aconite for the same purpose. The cyanuret of mercury is likewise extremely useful in the internal treatment of the syphilida; symptoms commonly disappear under its use, which have resisted the other forms of mercury, indeed a change of form in the remedy we are using is frequently of great benefit. The cyanuret may be given in solution, containing twenty-four grains of the salt to two pounds of distilled water; of this so-

[1] These tubercles are grouped amongst the tertiary symptoms by M. Ricord.

[2] SYRUP OF LARREY.

℞ Syrup. sudorific., lb. ij. *
Hydrarg. bichlorid. gr. xx.
Æther. sulphuric. ʒij.
Ext. opii, gr. xx.
Ammoniæ muriatis, gr. xx. M.

From one to two ounces of this sprup are administered in the course of the day, in divided doses, in a teacupful or more of the decoction of sarsaparilla, or some other sudorific.

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* The syrup of sarsaparilla may be used for the sudorific syrup; the only difference in the original prescription is the addition to the sarsaparilla of an equal quantity of guaiacum.

lution, from one to two ounces a day are administered in any vehicle. The iodide of mercury in doses of a grain a day, in the commencement, is the remedy preferred by Ricord. In constitutional syphilis, mercurial remedies are almost always more efficacious when given by the mouth, than when employed endermically by way of friction. If one form of the remedy disagrees, or does not soon produce marked effects, it will be advisable to have recourse to another, or even a third, till we have found one suited to the constitution of the patient, and the individual peculiarities of his disease.

362. *Iodine and its preparations.* These remedies are employed largely in the treatment of the secondary and tertiary symptoms of constitutional syphilis. Iodine of itself is a powerful antisyphilitic, but, unless in a state of combination with mercury, is inadmissible in the treatment of the simple primary forms of disease. It may be employed in the cutaneous diseases of constitutional syphilis with great advantage, and, though a remedy not so active as mercury, is particularly indicated in constitutional syphilis, where the primary forms of disease have been treated by full courses of the former medicine. Cullerier uses the following form for its administration.

℞. Iodini, gr. j.
Potassæ iodid. gr. ij, ad iv.
Aquæ, ℥j. M.

This may be put into a pint or quart of any vehicle; as the decoction of sarsaparilla, &c. and given at intervals during the day. The dose of the iodine may be increased to two grains in the day, and that of the iodide of potassium to six, or ten. The preparations of iodine are chiefly of use in constitutional syphilis, in scrofulous or delicate patients, and in glandular enlargements of syphilitic character, which have resisted the action of mercurials.

363. M. Ricord employs the iodide of potassium chiefly in those forms of constitutional syphilis which he has termed

tertiary. These are tubercles of the skin and mucous membranes, which, in the venereal pathology of this surgeon, form the link connecting the secondary with the tertiary forms of disease, nocturnal pains, periostitis, ostitis, caries, and tumours of the bones: in all these forms of disease, the iodide of potassium is considered by Ricord as the remedy "par excellence." He does not rely upon it so much in the secondary affections of the skin, unless used in combination with the iodides of mercury. The dose of the iodide of potassium, in the commencement, should be ten grains in the day, dissolved in an ounce of distilled water, and administered at intervals in any convenient vehicle; every two or three days the dose may be increased, observing its effects: it may be increased ten grains every three days; it may be carried as far as one hundred and forty grains in the day without any ill effect. The iodide of potassium accelerates the pulse, and occasions a slight heat in the stomach; generally, however, if the stomach be free from disease or irritation, it materially improves the digestive powers. If given in an overdose, the heat in the stomach amounts to pain, and may be followed by inflammation; it occasions also when thus employed, pricking or irritation of the skin, followed by a pustular eruption; sometimes the head is affected, and the quantity of urine enormously increased. Ricord mentions a case in which this took place to the extent of forty or fifty pints in the day; it was not found, on analysis, to contain sugar.

364. *Sudorifics.* These remedies are commonly employed with success in the treatment of constitutional syphilis. In addition to the compound decoction of sarsaparilla, &c. commonly used in this country, either alone, or as a vehicle for the exhibition of other remedies, several forms of these medicines are employed at the Hospital St. Louis, and in the Venereal Hospital, which may be adopted with advantage. The decoction of Zittman is the preparation most universally used, and that with great success. It is thus prepared,—

℞ Rad. sarsaparillæ, ℥xij.
Aquæ, lb. xxiv.

Boil for two hours, and add—

Aluminis sulph. ℥iss.
Hydrarg. chlorid. ℥ss.
Antimonii sulphuret. ʒj.

Boil down to two thirds, and add—

Fol. sennæ, ℥iij.
Rad. glycirrhizæ, ℥iss.
Sem. anisi, ℥ss.

Infuse for an hour, and strain.

This is termed the stronger decoction. The weaker one is to be prepared by taking the residue which remains after straining the stronger, and adding

Rad. sarsaparillæ, ℥ij.
Aquæ fontanæ, lb. xxiv.

Boil for two hours and add—

Corticis canellæ,
Corticis limonum,
Semin. cardamomi, } āā ʒiij.

Infuse for an hour, and strain.

The patient is directed to take half a pint of the stronger decoction the first thing in the morning, warm, and to remain in bed some time after taking it. During the day, he should take at intervals a pint of the weaker decoction, and in the evening a second half pint of the stronger. The last two doses are to be taken cold. Every fifth day the decoctions are to be omitted, and an aperient taken. This preparation is chiefly used in venereal affections of the bones, but is not less useful in the syphilida generally; it is employed largely in practice by Biett and Ricord.

365. The sudorific syrup[1] may be employed as a vehicle for other remedies. M. Ricord makes use of it for the administration of cyanuret of mercury.[2] The sulphuret of antimony, or the subcarbonate of ammonia, are also valuable additions to the simple sudorific decoctions. The arseniate of soda administered in a sudorific decoction, or in pills, is a remedy of great utility in obstinate syphilitic diseases of the skin; M. Alibert mentions the tuberculous varieties, or ulcerations where its exhibition is most likely to be successful. The dose is from one sixteenth to one eighth of a grain. Biett uses it largely with great success.

366. The mercurial vapour-bath should be regularly employed during the administration of that class of remedies of which we have just been speaking.

367. *The muriate of gold.* This remedy is particularly useful in the vegetating forms of the syphilides. It is prescribed in the form of ointment; from six to sixteen grains of the salt to an ounce of lard. Biett prefers it to every other remedy, as a local application to syphilitic vegetations. Internally it may be exhibited under the same forms, and in the same doses as the bichloride of mercury, its internal use is however uncertain.

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[1] SUDORIFIC SYRUP.

℞. Rad. sarsæ.
Guaiaci ligni rasi, āā ℥vj.
Aquæ, lb. iv.

Macerate for twenty-four hours; boil to one half over a slow fire; strain; and add from one to two pounds of white sugar.

[2] ℞. Syrup. sudorific. Oj.
Hydrarg. cyanuret. gr. iv.
Ext. opii, gr. viij. M.

A tablespoonful night and morning, increasing the dose gradually.

OPIUM.

368. Opium has, by a number of authorities, both ancient and modern, been extolled as a remedy of great value in the treatment of many forms of syphilis, and by many surgeons the dose has been carried to the extent of twenty or even thirty grains in the day. The cases in which opium is indicated, and in which I have employed it with success, are those of constitutional syphilis where the health has been broken by protracted disease and the use of mercury, when the nights are bad, and the patient emaciated and feeble; where a general irritability, the result of disease and mercury, prevails, and appears to be wearing the patient out.

In exostoses, periostoses, local pains, and secondary ulcerations, occurring in constitutions and in persons thus circumstanced, opium in large doses sometimes acts magically. I have employed it also with marked success in secondary ulcerations of the throat which have remained after mercury had been a long time used, and the ulcers still remained rebellious to every plan of treatment. In protracted ptyalism, resisting local treatment, it is also very efficacious. In all these instances opium appears to subdue a certain constitutional irritability which keeps up the disease and upon which the disease appears to depend more than upon any specific cause. It is surprising what large doses of the drug patients in this state will sometimes bear without producing constipation or headache. I have rarely given more than four or five grains a day, but I have no doubt the dose, as recorded experience has already proved, might be carried much further without any risk, should the circumstances of the case require it. In summing up the history of the remedies employed in constitutional syphilis, Cazenave says, "we have yet another mode of treatment to recommend, by whose agency we have seen the most formidable symptoms yield, the most inveterate ulcera-

tions healed, and the most durable cures produced when all other remedies have failed. We speak of the aqueous extract of opium, a precious remedy, even in the most profound cachexia."[1]

BATHS.

369. Baths of various kinds may be employed with the greatest advantage in some forms of primary, and in almost every variety of constitutional syphilis.

The baths I have generally used are of three kinds: the vapour-bath, either simple or medicated; the warm bath, either simple or medicated; and the fume-bath of mercury, of sulphur, or of both.

The vapour-bath I invariably employ, is Duval's, made in this country by Weiss and Sons, of the Strand. It is the most convenient, and the most efficacious of any I have ever seen employed. I have submitted patients to its action, who have used vapour-baths in Russia, Turkey, and all parts of Europe, and they have said that they have never used vapour-baths more prompt or efficacious in their action.

This bath finds its application in almost every variety of constitutional syphilis.

The water vapour-bath may be medicated by sulphuric acid vapour, or the vapour of the nitric, or hydrochloric acids, produced also by Duval's apparatus. These baths may be employed with the greatest success in a great number of syphilitic diseases of the skin, in the papular or squamous varieties, or in constitutional syphilitic ulcers of the skin of bad character, particularly those which are left, after the detachment of the crusts, in the pustular forms of disease.

I have employed also, with marked success, the vapour of water in which a small quantity of the bichloride of mercury has been dissolved.

[1] Traité des Syphilides, &c. Paris, 1843.

The mercurial vapour-bath is prepared by combining Werneck's method of fumigating with the ordinary vapour bath. It is, in most instances, the most efficacious remedy I know in the treatment of almost every form of constitutional disease. Internal treatment should be associated with it.

BATH OF THE BICHLORIDE OF MERCURY.

℞. Hydrarg. bichloridi, ʒij—iv.
Aquæ tepid., cong. xxx. M.

ALKALINE BATH.

℞. Potassæ carbonatis, ℥iv—℥viij.
Aquæ tepid. cong. xxx. M.

EMOLLIENT BATH.

To an ordinary tepid water bath add a large basinful of thick gruel or paste, and mix it well with the water.

370. Of all the auxiliary remedies in the treatment of constitutional syphilis none are equal to baths. In the first class of these remedies must be placed the vapour-bath, either simple or medicated. The emollient bath is extremely useful in many of the exanthematic forms of the syphilida, more particularly when these are accompanied by fever. The alkaline bath finds its application chiefly in the pustular forms, particularly when it is wished to detach the crusts of the pustulo-crustaceous forms, and the dryness of the crusts seems to show that the ulcers which they cover have healed. The bath of the bichloride, though extremely efficacious, must be used with some caution; it is useful in the squamous and other forms when perfectly chronic, but will not replace internal mercurial

treatment where this is indicated; the same may be said of the mercurial vapour-bath, and mercurial fumigations generally, these are to be looked upon as auxiliaries merely, but auxiliaries of so powerful a character that we should with difficulty dispense with their assistance.

CHAPTER XXIII.

GENERAL VIEW OF THE TREATMENT OF SYPHILIS, WITH SUGGESTIONS FOR THE PREVENTION AND CURE OF PROTRACTED AND CONSTITUTIONAL SYMPTOMS.

371. In the previous pages, I have given directions for the treatment of almost every form of primary and constitutional syphilis; the nature, however, of this formidable disease is such, that in many cases it is difficult, and in others impossible, to eradicate it from the system.

Nature of syphilis.

Syphilis properly so called is a morbid poison, capable of being propagated by inoculation in a manner similar to cow-pox or smallpox, and when mixed with the blood, of producing eruptions as formidable as dangerous, and sometimes as fatal as those which are produced by the latter disease, though much more varied in their character and appearance. This constitutional taint is always preceded by a primary affection, in which the disease is more or less local, the absorption of the virus from the local or primary disease producing the constitutional taint or temperament, which results from the mixture of this specific poison with the circulating mass of blood. Two things appear evident then from this statement of facts; these are to destroy the primary or local disease which is the focus, centre, or origin of the constitutional; and to prevent the constitutional or secondary. The immediate and speedy destruction of the primary disease by incision, caustic, or cautery, as soon as presented to our notice, unquestionably is the most rational, as well as in practice the

most certain method of preventing constitutional taint. And secondly, the administration of certain medicines, of which mercury is the chief.

Destruction of the primary disease by escharotics

372. I consider the speedy and immediate destruction of the surface of the skin which is the seat of vesicle, pimple, ulcer, or abrasion, the result of suspicious connexion, as the only certain means of preventing constitutional disease. Those primary forms of syphilis which are followed by constitutional disease, are so varied in their character that it is difficult, and sometimes impossible, to tell from the inspection of a primary sore or abrasion, whether it will or will not be followed by a constitutional disease. It is our first duty in all instances, at once then to destroy all ulcers which are the result of suspicious connexion, completely and immediately. If this were in all instances done, there is no question but that the constitutional syphilis would be in most instances altogether prevented.

Not always practicable.

373. Unhappily, however, there are numerous reasons why this cannot always be done. In many instances the surgeon is not consulted till many days after the establishment of the disease, when in all probability absorption of the venereal virus has already taken place. In other instances the situation and character of the ulcer is such that we are prevented resorting to the method recommended, though in all instances it should be done, however long the sore may have been in existence, if it be in any way practicable.

Object of administering mercury

374. So far for the most certain means of preventing the disease extending to the constitution; the next method practised is that by the administration of certain medicines of which, in this country at least, mercury is considered the chief. This is not so certain a method as the first: mercury has been recommended theoretically to fulfil two indications in the treatment of syphilis,—the first to hasten the healing of the primary ulcer, the second to prevent constitutional disease. Under many circumstances mercury will answer both these ends, but again there are many cases in which it will not do either. There is no reason why a grain of mercury should be

exhibited for the cure of a primary venereal affection, which has, on the very first discovery of the disease, been destroyed by a caustic sufficiently powerful. Many constitutions are inimical to mercury, and its exhibition so far disturbs the system that it cannot be borne, and its use must consequently be given up. There are other peculiarities of constitution, or conditions of constitution, in which although mercury is borne, it appears to dispose to the occurrence of certain diseases which are not known except the patient has had syphilis, and taken mercury for its cure. One of the most interesting and important questions to be resolved on this point is to know whether any and what treatment of the primary disease will prevent the secondary or constitutional.

Means of preventing secondary diseases.

375. The speedy and complete cure of the primary sore is the most certain mode of preventing constitutional infection. The treatment of this primary condition will vary, as the nature of the primary disease itself varies. I have already spoken of the best local treatment. Independent of this, however, there is a great deal in the management of the patient generally, during the time a primary sore is under treatment, and as much depends upon the patient as upon the surgeon. I believe the ordinary methods adopted under these circumstances are not sufficient, and that the general habits and diet of the patient are not sufficiently attended to; for a constitutional disease is frequently developed under the combined influence of an over-stimulating diet and irregular habits, which, under different circumstances, would never have appeared at all. If, as some have supposed, and with reason, the primary forms of syphilis itself are occasionally developed under the repeated influence of ordinary irritation, how much greater is the reason for abstracting the patient from all sources of irritation, when the primary symptoms of disease are already present in the system. There is no question but that the local treatment of, and the constitutional treatment during the presence of a primary syphilitic sore, has an immense influence over the production of secondary or constitutional disease. An over-stimulating local treatment unques-

tionably disposes to the occurrence of bubo, in the same manner that the glands inflame, enlarge, and suppurate, in the vicinity of irritations in other parts of the body. This species of bubo is also occasionally produced by mere excitement of the organs of generation, without any syphilitic taint whatever; of this I have seen numerous examples. Everything that will tend to diminish the risk of the occurrences of glandular disease in a subject affected with syphilis must evidently be of the first importance.

Why secondary diseases are sometimes developed.

376. Many of the primary forms of syphilis are accompanied by a series of symptoms, which have been termed consecutive, and which are ordinary pathological phenomena, dependent upon irritation or inflammation, not of a specific character, but more likely to take place in some constitutions than others. If these are mistaken by the unlearned for specific diseases, and treated specifically by mercury, constitutional symptoms are almost invariably produced, when the simplest medication with unirritating local treatment and a regulated diet would in all probability have brought the primary disease to a safe and speedy issue, whilst the constitutional symptoms would never have appeared at all.

A second cause.

377. Another frequent cause of the occurrence of constitutional syphilis is, no doubt, the administration of mercury for the cure of primary syphilis at improper periods, whilst the economy is not prepared to receive it. A certain degree of constitutional disturbance, irritability, or fever, almost invariably accompanies the first days of a primary venereal sore, and during this period mercury should never be given, nor till the patient is prepared for it, by low diet, aperients, and the warm or vapour bath. If mercury be administered during a condition of local or general irritability, constitutional symptoms are very likely to be developed. It is from this cause that we frequently see constitutional symptoms arising during the second or third weeks of a primary sore, where the patient has been suffered to follow his ordinary diet and habits. There are also certain conditions or forms of the primary sore, and different varieties of phagedæna, during which, if mercury be

exhibited, secondary symptoms are very likely to follow. I do not condemn mercury, but I condemn its injudicious employ; and I am convinced, from extensive experience, that its indiscriminate use in primary sores tends, in many instances, to develop constitutional disease. I have dwelt thus long on the true causes of constitutional disease because of its immense importance, no one knows, when once established, when it will be cured, or, in some constitutions, in what form it will return.

Secondary disease frequently wholly independent of the treatment of the primary.

378. Again, there are other forms of constitutional disease which must be considered as wholly independent of the treatment of the primary one, and which are the result of absorption of the poison of syphilis, and its mixture with the blood. The earlier symptoms of constitutional syphilis in good constitutions appear most commonly under the form of diseases of the skin in the exanthematic form, accompanied by some degree of fever, but this is invariably of a more chronic character than that accompanying the eruption of exanthematic diseases, dependent on other causes. There is rarely anything specific in appearance in these diseases in the commencement, and the pustular or squamous appearance is seldom developed till the eruption is perfectly matured or in the decline. The mucous membranes are the next parts affected, particularly of the fauces and throat, deep redness, with superficial or deep ulceration, accompanying most commonly the earlier symptoms of skin disease. It is not often, if the primary sore have not been improperly treated, and mercury not hastily or injudiciously given, that the more formidable symptoms of constitutional disease make their appearance, before the healing of a primary sore, soon after it has closed, or whilst the cicatrix is yet hard. Neither do these symptoms appear in ordinary cases unless they have been preceded by some affection of the skin or mucous membranes.

Occasional irregularity in the mode in which symptoms appear.

379. There are, however, instances, and I have witnessed several, where diseases of the bones and periosteum (which are generally amongst the latest constitutional symptoms to appear,) have been ushered in almost before the primary sore

has been healed; in these instances, the primary sore has assumed the phagedænic character, and mercury has been given for its cure. Here again, not only has the treatment of the primary influence over the production of constitutional disease, but over the character of constitutional disease.

380. Another very interesting point of investigation, in reference to the therapeutics of syphilis, relates to the nature of the treatment best adapted to the earlier stages of diseases of the skin and mucous membrane. As the indiscriminate use of mercury is to be condemned during the earlier days of a primary sore, so is it equally to be condemned during the first periods of skin diseases, accompanied and ushered in by fever, lassitude, thirst, headache, and weariness. As the precise pathological character of the syphilida cannot be determined on the first eruption of the disease, and as we well know mercury is positively injurious in many of these forms, it becomes doubly important to abstain from its use till the eruption is on the decline, or its precise elementary character evident. Many syphilitic eruptions, again, are of a mixed character, and *we should be guided as to the use of mercury very much by the character of the accompanying disease of the throat, where this exists, as it almost always does.*

Prevention of the more aggravated forms of constitutional disease.

381. A question of equal interest to that already propounded (whether any, and what treatment of the primary symptoms will prevent the constitutional?) presents itself here. What treatment of the earlier forms of constitutional disease seated in the skin and mucous membranes, will prevent the more aggravated forms (such as diseases of the bones and their coverings).

Perhaps one of the most frequent causes of secondary diseases succeeding primary, and tertiary succeeding secondary, is the recommendation by the surgeon, and the adoption by the patient, of an incomplete treatment. Thus all treatment is very commonly given up by the patient as soon as a primary sore has healed, or an eruption disappeared, and the customary habits of life are at once resumed, diet neglected, and medicine thrown aside. In such instances we have only succeeded in

getting rid of a symptom, not of eradicating a disease; and sooner or later other symptoms are made manifest, and they are always of a more formidable character than the last. Endless examples might be given, corroborating this statement; a patient has a better chance in following no treatment at all than following an incomplete one. Incomplete treatments.

382. Treatments are rendered incomplete from two causes; first, from the adoption of inefficient remedial agents; and, secondly, from discontinuing the remedies too soon. If a primary sore be treated, the remedies should be continued for fourteen days at least after it has healed, and hardness of the cicatrix disappeared; in the secondary forms of disease in the skin and mucous membranes, the patient should follow treatment for a month after the subsidence of symptoms. In the tertiary forms of tubercles, diseases of the periosteum and bones, the remedies should be continued for three or six months after the disappearance of the symptoms. The next common cause is, the inefficient or improper nature of the remedies used, or the irregularities of the patient during the time he is using remedies. If mercury be used, the proportions, and that form of administration should be chosen which suits the patient; again, these preparations must be used at the times, and under the circumstances already laid down. With some patients all preparations of mercury taken internally disagree; they pass off by the bowels, or produce so much irritation that their use must be given up. In these instances, frictions or fumigations may be substituted for internal remedies; and these can very commonly be borne, and are useful when internal remedies are injurious. Under this head may be mentioned also, the use of mercury for syphilitic symptoms which do not require mercury for their cure. Why treatments are rendered incomplete

383. The neglect of warm, or simple, or medicated vapour-baths, during treatment, more particularly of the constitutional forms of disease, is, again, one of the most frequent causes why syphilis becomes protracted, and why it so frequently returns when it has been supposed to be cured. I have for the last five years paid particular attention to this subject, and made Neglect of baths.

numerous experiments in reference to it. I have treated hundreds of cases, both in hospital and private practice, with and without the mercurial vapour-bath; and, as a general statement, in almost every form of constitutional disease, I believe I can truly say that the treatment is diminished from one half to one third of the time; the cures are vastly more certain, and there is no risk to the constitution of the patient, his health generally being improved by the treatment.

Value of baths.

384. Vapour bathing and mercurial fumigations have for a long period been employed in the treatment of syphilitic diseases, more particularly of the constitutional forms, and with the best success. In England this mode of treatment has been too much neglected, but in the great venereal hospitals of Paris and Hamburg the value of this method is fully and justly appreciated.[1]

I have adopted, however, a method somewhat different to any I have hitherto seen used; it consists in the application of mercurial vapour in a moist state to the surface of the skin, combining, in fact, the mercurial fume with the ordinary vapour-bath. I have made a number of experiments on this combination, and found it succeed in a variety of cases, where ordinary mercurial fumigation, or the vapour-bath, employed separately, had failed.

Mercurial vapour-bath.

Association with mild internal treatment.

385. These baths should be associated with an appropriate internal treatment. I have certainly seen them succeed where internal treatment had failed, but in most instances they should be associated with it. Such, however, is their efficacy as an auxiliary measure, that in all instances the internal treatment may be of the mildest kind. When mercury is indicated, the assistance afforded cannot be too highly appreciated, since half the quantity of the remedy will suffice for the completion of the cure, which is accomplished without risk to the consti-

[1] Of all the auxiliary remedies employed in the treatment of venereal diseases of the skin, the most valuable are, without exception, *Baths;* and at the head of these must be placed the various forms of vapour-baths. (Cazenave, on the "Syphilida," p. 214.)

tution of the patient; a circumstance so much to be dreaded under the old mercurial plan of treatment. In fact, the baths are so efficacious that frequently internal treatment will not succeed without them. I could bring forward many cases as evidence of this.

In one the patient had undergone a regular mercurial treatment for a primary sore, followed by an excavated ulcer of the tonsil, and a scaly eruption; he was profusely salivated, and kept the house for a month. Two months after he supposed himself cured he became again covered with a similar eruption, which entirely and permanently disappeared under the use of the baths and very minute doses of the bichloride of mercury with guaiacum. This treatment did not confine him an hour. Case.

In a second case, a gentleman of large fortune, the patient had an indurated cicatrix of six months' standing, (a symptom confessedly difficult to remove,) with an excavated ulcer of one tonsil, of several weeks' standing; he had been taking, under an eminent surgeon, five grains of calomel, and as much blue pill, night and morning for three weeks, without the slightest influence upon the disease, which entirely disappeared under three weeks' treatment by the baths, and nightly inunctions of a very small quantity of mercurial ointment. This patient was not confined during treatment. The permanent induration of the cicatrix of a chancre I have seen in several instances removed by the baths when all internal treatment had failed. I speak of this symptom particularly, as perhaps one of the most troublesome, and the most difficult to remove, of any form of primary syphilis; it being, as we too well know, the "*forerunner of accidents to come.*" In the treatment of the primary sore the mercurial vapour-bath has little efficacy, though I recommend it to be employed when the sore is about to heal, particularly if any induration be present, or if any remain after the wound has closed. Case.

386. In all the secondary forms of disease, more particularly those of the skin, the mercurial vapour-bath finds its application, associated, according to the form of the eruption Value of the mercurial bath in various

forms of constitutional disease.

and the nature of the accompanying disease of the throat, with whatever internal treatment it is thought proper to employ. The mercurial vapour-bath is to be looked upon as an auxiliary remedy, but an auxiliary which diminishes the duration of ordinary treatment at least one half. It should not be employed during the fever, which sometimes accompanies the onset of many of the forms of syphilida. Here bleeding, antimonials, and aperient medicines should precede its use.

In diseases of the bones and periosteum, in chronic enlargement of the glands of the groin, and of the testis, in the cachectic conditions which are the result of protracted diseases, and repeated mercurial treatments, which have broken down the constitution; these baths, combined with remedies calculated to improve the general health, in most instances work the most remarkable cures.

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